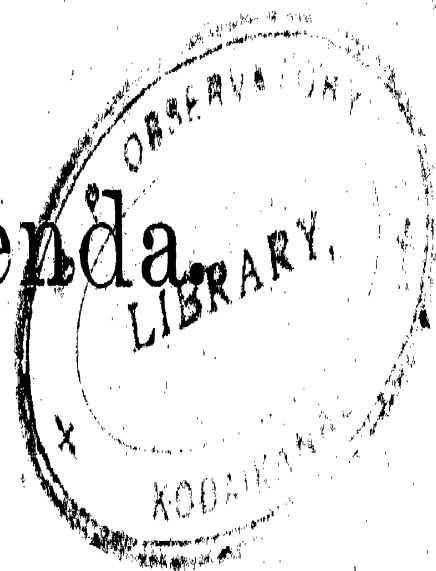


# Addenda et Corrigenda.

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## Series II.

Ch. 2815, U Geminorum,

In Catalogo Nota „Sch. II var.“ pertinet ad W.d (linea 3<sup>a</sup>).

## Series IV.

Ch. 1205, Y Persei,

In Charta legendum  $+ 43^0$  pro  $- 43^0$ .

Ch. 7299, U Cygni,

In Catalogo, Num. 6, columna HP. addendum 6.93. (Vide no. 8 in Ch. 7239).

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# Verbesserungen und Zusätze

zu

## Beobachtungen Veränderlicher Sterne

von

Eduard Heis and Adalbert Krueger.

Berlin, Verlag von Felix L. Dames, 1903.

Seite

- 12 Erste Zeile, lies: 806 o Mira Ceti. Series V, Ch. II; (Series IV).  
Den letzten drei Vergleichsternen (y), d, h können in der Kolumne ASV. die Stern-Nummern (aus Series IV) nachgetragen werden: (3), (4), (9).
- 24 1866 Dec. 10, statt (335 B) lies: (235 B).
- 143 Zeile 4 v. o., unter BD. lies:  $+9^{\circ}$  statt  $+99^{\circ}$ .
- 167 Erste Zeile, lies: 806 o Ceti (M). Series V, Ch. II.
- 179 S Cancri. Die unter ASV. gegebenen Größen sind aus den Stufenschätzungen nach der BD. Scala berechnet. Im ASV. sind dieselben aber durch andere nach der HP. Scala berechnete ersetzt worden. Die letzteren folgen hier in der 3. Kolumne (HP.), während die ersteren in der 2. Kolumne (BD.) abgedruckt sind, mit den Stern-Nummern (N) des ASV. in der 1. Kolumne:

N	BD.	HP.
11	8.1	7.7
12	8.1	7.8
14	8.6	8.2
18	9.2	9.3
19	9.4	9.7
22	9.8	10.3

- 206 R Canis Minoris. Die für Seite 179 gemachte Bemerkung gilt auch hier und wird die folgenden drei Zeilen erklären:

ASV.	2	4	6	7	16	
	7.3	8.0	8.2	8.3	9.2	(BD. Scala)
	6.8	7.8	8.1	8.5	9.5	(HP. „ )

- 207 V Bootis. Die Stern-Nummern des ASV. sind geändert und die nach der BD. Scala berechneten Größen durch andere ersetzt worden, welche auf der HP. beruhen. Es folgt hier die verbesserte und erweiterte Tafel der Krueger'schen Vergleichsterne:

Krueger:	h	n	m	l	o	k
ASV.	5	9	10	16	17	25
	7.8	8.4	8.5	8.9	9.0	9.6 (BD. Scala)
	8.3	9.0	9.1	9.7	9.9	11.3 (HP. „ )

- 215 } Die Karten-Nummer für R Ursae Maioris sollte 3825 statt 4557 sein. Beim Ändern von  
220 } S in R (siehe die Anmerkung auf Seite 215) ist die Nummer stehen geblieben.

# ATLAS

## STELLARUM VARIABILIIUM.

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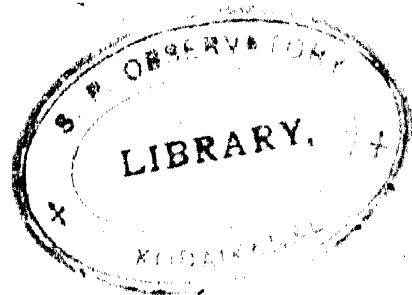
### SERIES QUARTA,

EAS STELLAS VARIABILES COMPLECTENS, QUARUM  
ET DECLINATIONES ET MAGNITUDINES  
INTRA LIMITES CHARTARUM BONNENSIIUM CONTINENTUR,

COMPOSITA

A

I. G. HAGEN, S. I.,  
SPECULAE VATICANAE DIRECTORE,



ET TYPIS DESCRIPTA SUBSIDIIS

CL. DOMINAE CATHARINAE W. BRUCE.

---

BEROLINI,  
APUD FELICEM L. DAMES,  
MCMVII.

PIO · X · P. M.

HOC · E · NOVA · TURRI · PRODIENS

DE · STELLIS · MUTABILIBUS

VOLUMEN

D · D · D.

AUCTOR.



# PRAEFATIO.

Hanc Seriem IV<sup>am</sup> ex iis, quae I<sup>ae</sup>, II<sup>ae</sup>, III<sup>ae</sup> praemisimus, constat ad observandas illas stellas variabiles adiumento fore, quarum lux minima instrumentis mediocribus cerni possit. Maxime igitur idonea illa instrumenta sunt, quorum apertura inter terminos 8 fere et 16 centimetrorum versatur; limes autem magnitudinum stellarum, quae in his Chartis delineatae sunt, idem fere est atque catalogorum Bonnensium, qui BD. designantur.

Iam quo facilius et Chartae et Catalogi huius quartae Seriei intellegantur, quaedam videntur explicanda esse.

Et Chartae quidem ea omnia, quae ad observationes noctu faciendas necessaria sunt, suppeditant.

Inscriptiones pleraeque sumptae sunt aut ex III<sup>o</sup> catalogo D. Chandler (1896), aut ex Catalogo, qui nuper a D. Pickering editus est (A provisional catalogue of variable stars. 1903). Numeri, quos D. Chandler sua lege stellis variabilibus tribuit, non modo retinentur, sed recentibus etiam stellis, quae a Commissione Societatis Astronomicae catalogo variabilium rite additae sunt, secundum eandem legem applicantur.

Positiones variabilium ex optimis fontibus, plerumque ex catalogis Societatis Astronomicae (A G C.) ductae sunt.

Colores translati sunt ex III<sup>o</sup> catalogo D. Chandler vel ex supplemento D. Yendell (A. J. XXIV, 99—102). Numeros colorum Chandlerianos litteris catalogi, qui Potsdamer Durchmusterung (PD.) appellatur, saltem ex parte respondere alibi (V. J. S. XXXIV, 297) statuimus. His litteris W, G, R si adderetur quarta velut P, convenientia esset perfecta. Qui numeri quibus litteris respondeant, ex hac tabula videbis:

Ch.	0	1	2	3	4	5	6	7	8	9
PD.	W	GW	WG	G	RG	GR	R	PR	RP	P

Ab hac autem tabula colorum scalae DD. Schmidt, Krueger, Safarik, Osthoff, qui inter se conveniunt, paululum discrepant. Tabulas inter se comparatas loco citato invenies.

Aestimationes colorum nostra vel aliorum opera factas minus accuratas esse numeris integris, fractione decimali omissa, innuitur.

Quod sit cuiusque stellae variabilis spectrum, secundum divisiones P. Secchi numero latino indicatur. Hos numeros plerumque ex catalogo D. Pickering (vide supra) ita transcripsimus, ut respondeant

Secchi	I	I—II	II	III	IV
Pickering	A, B	F	G, K	M	N

aliquos autem sumpsimus ex catalogis D. Krueger, qui eadem qua P. Secchi divisione et notatione utitur (Catalog der farbigen Sterne et Astroph. Journ. II, 149 sqq).

Stellarum inter maximam minimamque lucem variationes numeris sive integris sive dimidiatis summatim comprehenduntur. Quae amplitudines variationum si in catalogis non praebentur, nostris observationibus, quantum ad hoc valebant, suppletae sunt. Has in stellis recentioribus minus certas esse facile intellegitur.

Mensura Chartarum huius Seriei dimidiata est priorum, ita ut latera quadrati exterioris ad binos circuli gradus extendantur areamque caeli quadruplo maiorem comprehendant.

Densitatis stellarum ratio, quae intercedit inter quadratum interius eiusque regionem exteriorem, in hac Serie similis est atque in superioribus. Illud enim non solum omnes stellas catalogi BD. complectitur, sed minores etiam, si quae vel ad observandam lucem minimam stellae variabilis vel ad configurationes certius cognoscendas utiles fore videbantur. In area autem, qua interius quadratum circumdatur, inferior magnitudinum limes est inter  $8^M$  et  $9^M$ , prout vel cognitio configurationum vel graduum lucis aestimatio desiderabat.

Stella variabilis in hac Serie ut in prioribus in media Charta est; designatur duobus circulis, qui maximae luci minimaeque respondent. Et haec quidem de Chartis.

Catalogi vero exhibent ea omnia, quae ad computationes faciendas pertinent.

Inscriptionibus declaratur, quae stellarum variabilium positio fuerit anno 1855.0. Variationum Elementa, i. e. Epochae et Periodi, sumpta sunt tum ex III<sup>o</sup> catalogo D. Chandler eiusque revisione (A. J. XVI et XXIV), tum ex catalogo D. Pickering eiusque duobus supplementis (H. C. O. XLVIII et LIII), tum ex litteris privatis D. G. Müller. Variationum autem, quae ad typum Algol pertinent, solae Periodi indicantur, cum tempora lucis minimae securius et facilius ex Ephemeridibus sumantur.

Magnitudinibus catalogorum BD. et CD. numeri etiam additi sunt, quippe qui hoc loco omittendi non essent. Litteris HP. (Harvard Photometry) inscribitur columna proxima, cuius magnitudines D. Pickering suis observationibus recentissimis computatas benigne ad nos misit.

Graduum columna partim est duplex. Chartae enim huius Seriei IV<sup>ae</sup>, quarum stellae variabiles in catalogis D. Chandler continentur, a P. Ioseph Hisgen S. I., in specula Georgiopolitana delineatae, postea in Valkenburgensi maxima cura cum ipso caelo comparatae sunt. Sed cum multitudo stellarum variabilium, quae huius Seriei sunt, hodie post quintum supplementum mandatu Societatis Astronomicae editum duplo maior sit, omnes Chartas et priores et recentiores, ut uno atque eodem modo conficerentur, ipsi cum caelo diligenter comparavimus. Graduum igitur columna, si simplex est, nostrae observationes, si duplex, priore nostrae, posteriore P<sup>is</sup> Hisgen observationes indicantur. Has columnas inter se comparanti apparebit, quam accurate gradus lucis aestimaverimus, praesertim cum instrumentis eiusdem magnitudinis (23 cm) atque ratione simili independenter usi simus. Utriusque columnae numeri binis saltem aestimationibus nituntur. Numeri si qui uncis includuntur, dubii sunt.

Magnitudines stellarum in hac Serie altiore fundamento nituntur. Nam cum in prioribus extrapolatione quadam systematis Bonnensis deductae sint (vide AN 3459 et Astroph. Journ. VI, 441), hic cum systemate, quod „Harvard Photometry“ nominatur, omnino conveniunt. Definitae autem sunt hoc modo. Singularum Chartarum stellas quasdam selectas D. Pickering instrumentis photometricis dimensus est. Magnitudines ita determinatas, quas in columna HP. invenies, „gradibus“ nostris tanquam ordinatas suis abscissis applicavimus. Curva deinde continua per extremas ordinatas ducta uniuscuiusque „gradus“ magnitudinem definivit. Quae curvae quamquam aliae sunt in aliis Chartis, nusquam tamen a linea recta multum discedunt. Ubi duplex graduum ordo habetur, utriusque curvae magnitudines determinavimus, determinatas ad medium arithmeticum reduximus. Quarum inter se discrepantiae plerumque limitibus  $\pm 0^M.1$  vel  $\pm 0^M.2$  circumscribuntur; quamquam, quotiens curvae ultra stellas a D. Pickering dimensas producendae erant, fieri vix potuit, quin differentiae aliquotiens ad  $\pm 0^M.3$  vel  $\pm 0^M.4$  augerentur.

Positiones stellarum distantis  $\Delta\alpha$  et  $\Delta\delta$  a mediis Chartis indicantur. Quae distantiae, quamquam variabilium stellarum positiones ad annum 1855.0 referuntur, in annum 1900.0, quae est epocha totius Atlantis, computatae sunt. Lucidiorum stellarum positiones ductae sunt ex catalogis Societatis Astronomicae sive tunc iam editis sive, antequam typis editi sunt, benigne ad nos missis. Si quae caeli regio huius Societatis catalogis tum carebat, observationibus meridianis alibi evulgatis usi sumus. Tenuiorum autem stellarum positiones praeter eas, quae aut nostra ipsius opera aut speculae Harvardiensis tabulis photographice corrigendae vel supplendae erant, ex catalogo BD. sumptae sunt. Notandum autem est illos errores catalogi BD., qui nullam in recognoscendis configurationibus difficultatem creant, plerumque emendatos non esse.

In postrema Adnotationum columna invenies colores magnitudinesque catalogi PD., litteras Bayer, numeros Flamsteed. Nota autem „dpl.“ iis stellis, quarum componentes separatim observari non poterant, hac potissimum ratione addita est, ne quis his stellis in luce variabilium metienda utatur. Hac aliave nota, si catalogorum nomina praecedit, observationem in specula vel Georgiopolitana vel Valkenburgensi factam, si sequitur, ex catalogis descriptam esse indicatur. Litterae autem minores

uncis inclusae colores a P. Hisgen aestimatos designant eosdemque colores significant atque maiores eiusdem nominis litterae catalogi PD.

Reliquum est, ut auxilii, quod in hac Serie IV<sup>a</sup> conficienda ab aliis multis accepimus, mentionem faciamus. Quae Chartae stellas variabiles iam dudum observatas continent, earum delineationes et catalogos primos confecit P. Hisgen, ut supra dictum est, ceterarum P. Esch S. I. et P. Hedrick S. I. Positiones stellarum tam variabilium quam aliarum ex variis catalogis maximo labore collegit P. Hedrick, cum in collegio Woodstockiensi versaretur. Denique in parandis, quas supra descripsimus, curvis magnum adiumentum attulit, qui nunc observatorio Manilano adscriptus est, P. I. Comellas, S. I.

Neque praetermittendum est, quam insigne officium Rev. P. Searle C. S. P., olim speculae Universitatis Catholicae Americanae director, nobis praestiterit. Ille enim instrumentum, quod est eiusdem magnitudinis, generis, aetatis ac Valkenburgense, speculae Georgiopolitanae, ut haec Series IV<sup>a</sup> commode confici posset, in usum tradidit.

Plurimum item debemus D. Pickering, qui non solum magnitudines suas photometricas, ut supra notavimus, ad nos transmisit, sed etiam omnes huius Seriei Chartas cum tabulis photographis speculae Harvardensis comparandas curavit. Quod opus arduum D<sup>a</sup> W. P. Fleming suscipere voluit susceptumque pro sua in his rebus sollertia atque usu feliciter ad finem perduxit. Id autem effecit, ut non solum minores figurarum errores corrigerentur, sed id quod maius est, ut stellas in mediis Chartis positas variabiles esse confirmaretur. Quam confirmationem labore vel maximo dignissimam esse, quicumque in hac stellarum variabilium disciplina versati sunt, facile intellegent.

His omnibus, qui ad hanc Seriem vel componendam vel typis edendam contulerunt, maximas agimus gratias. Eadem gratia memoriae Clarissimae Dominae debetur, cuius nomen in folio titulari inscribitur; debetur D. Pickering, cuius illa commendationibus adducta huic operi subsidia praebuit; debetur bibliopolae, qui quamvis his subsidiis minime in tuto collocaretur, tamen in hac editione ad pulchritudinis normam ornanda neque labori pepercit neque periculo.

Faxit Deus, quo magis in dies caeli enarrent gloriam suam, ut hoc Atlante via paretur ad stellarum variabilium arcana altius investiganda, plenius intellegenda.

Ex Specula Vaticana,

Die XIX. Martii, anno MCMVII.

I. G. Hagen, S. I.

## U Cephei

 $0^h 49^m 39^s$  (1855.0)  $+81^\circ 5'.5$ Typus Algol, Periodus:  $2^d 11^h 49^m 44^s.55$ .

Num.	BD.		HP.	Gradus		Magn.	$\Delta\alpha$	$\Delta\delta$	Notae
1	+81° 13	6 <sup>M</sup> .5	6 <sup>M</sup> .40	0	0	6 <sup>M</sup> .4	-21 <sup>m</sup> 10 <sup>s</sup>	+36'.3	PD. WG-, 6 <sup>M</sup> .6
2	80 36	6.7	6.73	5	10	6.8	+16 40	-58.2	" GW, 6.9
3	80 35	7.3	7.20	10	25	7.3	+16 15	-60.2	" GW, 7.3
4	81 18	7.6	7.55	(12)	29	7.4	-11 30	+ 5.1	" WG, 7.4*
5	80 34	8.0		17	42	7.8	+15 5	-18.3	
6	81 30	8.3	8.08	22	54	8.1	+ 2 55	+ 5.2	
7	80 26	8.5	8.43	29	64	8.4	- 0 5	-52.5	
8	80 19	8.4		29	64	8.4	-14 5	-44.2	
9	81 27	8.6	8.44	29	65	8.4	+ 1 20	+13.6	
10	81 29	8.6	8.54	29	68	8.5	+ 2 0	+22.5	
11	80 38	8.4		29	68	8.5	+21 20	-29.9	
12	80 31	8.7		31	67	8.5	+10 15	-53.7	
13	81 34	8.7		32	70	8.6	+10 0	- 5.3	
14	80 21	8.9		40	80	8.9	-10 55	-16.5	
15	80 22	9.2		44	88	9.1	- 9 25	-12.1	
16	81 22	9.2	9.19	46	91	9.2	- 7 45	+ 2.1	
17	81 17	9.3		46	96	9.3	-12 15	+ 4.7	
18	80 23	9.2		51	101	9.5	- 8 35	- 8.3	
19	81 32	9.4	9.54	53	107	9.6	+ 5 45	+25.8	
20	80 32	9.3		54	109	9.6	+12 40	-23.1	
21				58	115	9.8	- 1 35	-10.8	
22	81 35	9.5		62	118	9.9	+11 0	+ 7.8	
23	81 19	9.5		63	121	10.0	- 9 55	+ 7.4	
24	80 27	9.5	10.24	66	122	10.1	+ 0 15	- 9.3	
25	81 36	9.5		68	122	10.2	+11 20	+ 2.3	
26				68	126	10.2	+11 55	- 8.7	
27	80 29	9.5		73	128	10.4	+ 6 55	-23.0	
28	81 26	9.5	10.23	73	130	10.4	+ 1 0	+ 5.1	
29	81 33	9.5		79	130	10.5	+ 9 50	+17.2	
30				79	130	10.5	- 6 50	+ 3.7	
31	+80 25	9.5		79	131	10.5	- 1 45	- 7.1	
32				87	133	10.7	+ 2 50	- 5.6	
33				89	134	10.7	+ 1 5	- 5.1	
34				92	135	10.8	- 2 45	- 2.9	

\* Vide Pickering, Provisional Cat. 1903, no. 004281: variatio o<sup>M</sup>.6.

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## o Ceti

 $2^h 12^m 1^s$  (1855.0) —  $30^\circ 38'.3$ Max. =  $2415575.0 + 331.693 E$  (Inaequalitas periodica).

Num.	BD.		HP.	Gradus		Magn.	$\Delta\alpha$	$\Delta\delta$	Notae
1	$-3^\circ 336$	$5^M.9$	$5^M.72$			$5^M.7$	$-6^m 37^s$	$+34'.2$	Series V Ch. II 36
2	3 374	6.7	6.36			6.3	+5 37	+11.9	*y, Series V Ch. II 43
3	2 389	7.8		0	0	7.8	-1 35	+55.7	
4	4 379	8.5	8.06	6	6	8.0	+0 46	-33.6	* $\beta$ ( $8^M.02$ )
5	4 366	8.4		14		8.2	-3 23	-67.6	
6	4 367	8.3		18	18	8.4	-3 13	-54.0	
7	3 345	8.5	8.68	23	22	8.6	-2 31	+ 3.7	dpl.
8	2 396	8.4		29	23	8.7	+0 25	+44.5	
9	3 363	8.9	8.86	35	25	8.9	+2 16	+ 0.8	* $\delta$ (8.82)
10	3 355	9.0	9.08	42	32	9.2	+0 8	+ 0.3	* $\epsilon$ (9.19)
11	3 347	9.0	9.36	46	34	9.3	-1 27	+11.3	
12	4 364	9.0		51	36	9.5	-3 43	-26.5	
13	4 372	9.0		55	36	9.6	-1 16	-52.2	
14	4 375	8.9		56	37	9.6	-0 40	-30.9	
15	3 344	9.1		60	37	9.7	-2 32	+ 1.8	
16	3 343	8.9		60	42	9.8	-3 28	+27.0	
17	3 364	9.0		63	44	10.0	+2 30	-15.8	
18	3 354	9.3	10.10	69	49	10.3	+0 3	-18.1	
19	3 356	9.4	10.43	74	52	10.5	+0 42	+10.6	
20	3 360	9.3		77	53	10.6	+1 32	+27.4	
21	3 357	9.7	10.41	82	50	10.8	+0 55	+ 6.0	
22	3 348	9.9	10.85	77	59	10.8	-1 24	+ 8.3	
23	3 350	9.8	11.08	86	56	10.9	-0 48	-20.8	
24				88	62	11.2	-0 47	-17.2	
25	$-3 351$	9.8	11.42	90	64	11.3	-0 47	- 8.2	

\* HCO. vol. XXXVII p. 154.

## U Ceti

 $2^{\text{h}} 26^{\text{m}} 45^{\text{s}} \quad (1855.0) \quad -13^{\circ} 47'.2$ 
 $\text{Max.} = 2409522^{\text{d}} + 235^{\text{d}}.8 \text{ E.}$ 

Num.	BD.		HP.	Gradus		Magn.	$\Delta\alpha$	$\Delta\delta$	Notae
1	-12° 481	7. <sup>M</sup> 0	6. <sup>M</sup> 91	0	0	6. <sup>M</sup> 9	+0 <sup>m</sup> 12 <sup>s</sup>	+48'.7	
2	13 457	6.8	7.25	3		7.0	-4 20	+13.8	
3	12 478	7.5	7.42	9		7.3	-0 56	+103.7	
4	13 492	7.5	7.65	18	13	7.7	+2 38	+15.1	
5	13 495	7.3	7.78	22		7.9	+4 8	+ 1.2	
6	14 478	7.7		25		8.0	+0 21	-61.3	
7	12 462	8.5		30		8.2	-4 22	+70.2	
8	12 469	8.2		34	23	8.4	-2 55	+55.3	
9	13 462	8.0	8.61	38	27	8.6	-3 54	- 6.6	
10	14 481	8.3	8.74	41	28	8.7	+0 43	-39.0	
11	14 468	8.2	8.82	41	30	8.7	-3 45	-50.0	
12	13 481	8.5	9.09	49	35	9.1	+0 16	+12.0	
13	13 483	8.8	9.03	52	37	9.2	+0 51	+24.0	
14	14 485	8.5		57	37	9.3	+1 35	-40.1	
15	13 468	8.8	9.52	61		9.5	-2 24	- 1.0	
16	14 479	8.9		65	43	9.8	+0 30	-22.3	
17	13 487	8.8		68	45	9.9	+1 41	+22.2	dpl.
18	14 472	9.2		77		10.2	-2 7	-30.9	
19	13 474	9.5		83	48	10.4	-0 52	- 9.3	
20	13 490	9.5		82	49	10.5	+2 6	+11.1	
21	13 472	9.5		89	50	10.7	-1 0	+24.7	
22	13 469	10		95	54	11.0	-1 55	+15.9	
23	13 484	9.8		92	57	11.1	+1 4	+23.5	
24	13 470	9.9		100	54	11.1	-1 39	+20.7	
25	13 476	9.8	11.14	100	55	11.2	-0 21	+ 2.9	
26	13 478	9.9	11.42	105	58	11.4	-0 12	- 0.8	
27				108	58	11.4	-1 50	+19.2	
28	13 486	10		109	60	11.6	+1 23	+11.8	
29				111	61	11.6	-1 2	+ 5.4	
30	-13 489	10		111	61	11.6	+2 0	+15.6	
31				120	65	12.1	+0 44	- 0.1	
32				117	66	12.1	-0 12	- 9.3	
33				115	67	12.1	+0 25	+ 0.6	
34				129	69	12.5	-0 37	-17.4	

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## T Arietis

 $2^{\text{h}} 40^{\text{m}} 15^{\text{s}}$  (1855.0)  $+16^{\circ} 54'.1$ Max. =  $2\,405\,249^{\text{d}} + 313^{\text{d}} \text{E.}$ 

Num.	BD.		HP.	Gradus		Magn.	$\Delta\alpha$	$\Delta\delta$	Notae
1	+16° 355	5 <sup>M</sup> .7	5 <sup>M</sup> .30	0		5 <sup>M</sup> .3	+0 <sup>m</sup> 57 <sup>s</sup>	- 2'.6	PD. W, 5 <sup>M</sup> .6, $\pi$ Ariet. *
2	17 442	6.0	6.04	15		6.0	+0 10	+46.5	„ G, 6.1, 40 „
3	17 426	6.5	6.47	25		6.6	-4 1	+15.0	„ G, 6.6, 36 „
4	16 342	7.8	7.30	0	36	7.3	-2 36	-29.6	
5	15 397	8.3		15	44	7.9	+3 34	-60.3	
6	16 346	8.7	8.55	30	51	8.5	-0 54	-18.1	
7	16 345	8.6	8.60	28	54	8.6	-0 59	-13.6	
8	16 353	8.8	8.88	34	58	8.8	+0 13	-23.6	
9	16 348	8.8	8.97	39	62	9.0	-0 37	-12.6	
10	16 358	9.5		42	72	9.4	+1 33	+ 3.1	
11	17 440	8.9	9.45	46	70	9.5	-0 26	+ 6.6	
12	16 350	9.5	9.50	51	74	9.7	-0 4	- 5.3	
13	17 439	9.3	10.03	56	77	10.0	-0 43	+12.4	
14				58	78	10.1	-0 52	-15.3	
15	16 356	9.5		58	80	10.1	+1 6	- 6.0	
16				68	84	10.6	-0 45	-14.4	
17	16 347	9.5	10.72	68	85	10.7	-0 52	+ 1.0	
	+16 354	9.5					+0 11	- 8.7	**

\* AGC. dpl. 3".

\*\* Nunquam visa (1897, 1898, 1904).

980

## W Persei

 $2^h 39^m 58^s$  (1855.0)  $+56^\circ 22'.6$ 

Variatio irregularis.

Num.	BD.		HP.	Gradus		Magn.	$\Delta\alpha$	$\Delta\delta$	Notae
1	+55° 714	3 <sup>M</sup> .5	3 <sup>M</sup> .93			3 <sup>M</sup> .9	+0 <sup>m</sup> 9 <sup>s</sup>	-65'.2	PD. RG-, 3 <sup>M</sup> .9, $\eta$ Persei, dpl.
2	56 718	6.5	6.53		0	6.5	-1 7	+ 5.9	„ G-, 6.4
3	56 717	7.6	6.94		19	6.9	-1 23	+ 2.9	
4	57 632	7.2	7.54	0	49	7.6	-3 48	+44.7	„ WG, 7.5
5	57 665	8.0		8	66	7.9	+5 35	+57.5	
6	57 640	7.8		13	72	8.0	-1 42	+62.8	
7	55 704	7.5	8.41	15	74	8.1	-3 46	-66.6	„ WG, 8.1
8	55 726	8.0		19	76	8.1	+5 55	-47.7	
9	57 634	8.0		19	77	8.1	-3 15	+41.3	
10	55 696	7.8		21	77	8.2	-7 4	-29.4	
11	56 732	8.0	8.28	23	79	8.2	+1 51	+16.6	
12	57 662	8.5		23	80	8.2	+5 14	+61.6	
13	56 708	8.2		25	81	8.3	-5 31	+ 8.7	
14	57 643	8.0		29	88	8.4	-1 10	+54.0	
15	57 623	8.0		30	88	8.4	-6 15	+48.7	
16	56 728	8.5	8.48	30	91	8.5	+1 9	+ 4.0	
17	55 702	7.7		30	93	8.5	-5 10	-25.6	
18				35	99	8.6	-5 8	-25.6	
19	56 702	8.2		35	97	8.6	-6 23	+ 7.0	
20	57 630	8.5		40	98	8.7	-5 13	+38.9	
21	55 709	8.3	8.68	41	100	8.7	-1 17	-25.4	
22	57 638	8.2		42	102	8.8	-1 59	+48.6	
23	57 641	8.8		43	106	8.8	-1 33	+61.7	
24	56 721	8.9	9.12	49	117	9.1	-0 29	-18.9	
25	56 725	9.0	9.22	51	117	9.2	+0 4	+ 1.4	
26	56 736	9.0		52	126	9.3	+3 26	+21.4	
27	56 723	9.0	9.45	56	123	9.3	-0 23	-22.1	
28	55 716	9.5		60	136	9.6	+1 58	-25.7	
29	56 715	9.4	9.56	60	139	9.6	-1 36	- 6.8	
30				65	144	9.8	+2 50	-24.5	
31	56 733	9.3	9.89	66	152	9.9	+1 59	+28.8	
32	56 716	9.5		68	156	10.0	-1 26	+26.1	
33	56 726	9.5	10.27	73	159	10.2	+0 12	-11.4	
34	56 731	9.5		75	164	10.3	+1 34	- 2.6	
35	+56 713	9.5		77	164	10.4	-3 24	+15.7	



Num.	BD.		HP.	Gradus	Magn.	$\Delta\alpha$	$\Delta\delta$	Notae
36				79 173	10 <sup>M</sup> .5	+1 <sup>m</sup> 12 <sup>s</sup>	+ 1'.1	
37	+56° 727	9 <sup>M</sup> .5	10 <sup>M</sup> .69	79 174	10.5	+0 51	- 1.6	
38	56 722	9.5		77 179	10.6	-0 27	+ 4.9	
39	56 714	9.5		83 171	10.6	-2 31	-11.4	
40				87 177	10.8	-0 53	-11.1	
41	56 719	9.5		90 180	10.9	-0 48	- 4.6	
42				90 182	11.0	-0 55	+ 3.5	
43	56 730	9.5		91 183	11.0	+1 24	+28.5	
44				93 184	11.1	-0 17	+14.5	
45	56 735	9.4		98 186	11.2	+3 23	+ 2.9	
46				98 187	11.2	-0 8	- 3.0	
47	56 720	9.5		99 188	11.3	-0 40	+27.7	
48	+56 734	9.5		99 189	11.3	+3 2	+15.5	

Variabilis W in Chandler III nominatur V Persei.

1205

## Y Persei

 $3^h 17^m 53^s$  (1855.0)  $+43^\circ 39'.9$ Max. =  $2\ 415\ 254^d + 236^d?$ 

Num.	BD.		HP.	Gradus	Magn.	$\Delta\alpha$	$\Delta\delta$	Notae
1	+42° 75°	5 <sup>M</sup> .4	4 <sup>M</sup> .98		5 <sup>M</sup> .0	-6 <sup>m</sup> 10 <sup>s</sup>	-51'.5	PD. GW, 5 <sup>M</sup> .2, 1 Persei
2	44 734	6.5	6.33		6.3	+4 52	+41.3	„ GW-, 6.6
3	43 730	7.0	6.91		6.9	+0 35	+12.1	„ G+, 6.6*
4	44 732	7.5	7.25	0	7.2	+4 30	+40.4	„ G, 7.2
5	44 714	7.3	7.37	3	7.3	+1 28	+52.5	„ GW, 7.2, dpl.**
6	43 732	7.5	7.25	4	7.4	+0 52	-25.3	„ W+, 7.4
7	43 720	7.6		8	7.5	-0 46	-31.3	„ WG+, 7.4
8	42 772	7.5		18	7.8	+2 46	-71.5	„ W+, 7.9
9	43 728	8.4	8.05	28	8.2	+0 19	+12.9	„ GW, 8.3
10	44 683	8.2		31	8.3	-4 47	+46.8	
11	44 717	8.5		37	8.4	+2 49	+39.7	„ GW-, 8.6
12	43 729	8.7	8.48	41	8.6	+0 20	+ 9.9	„ GW, 8.7
13	44 712	8.9		41	8.6	+0 58	+28.4	„ WG, 8.8
14	43 744	8.6		41	8.6	+4 20	-29.7	„ GW, 8.7
15	43 723	9.1		45	8.7	-0 22	-27.2	„ GW+, 9.0
16	44 721	8.9		47	8.7	+3 34	+29.1	„ GW-, 8.9
17	43 692	8.9		49	8.8	-5 18	-14.5	
18	43 690	8.9		51	8.9	-5 58	-20.5	
19	43 746	9.1		52	8.9	+4 39	-38.6	„ GW, 9.0
20	43 699	8.9		53	8.9	-4 8	-13.0	
21	43 739	9.0		55	9.0	+3 8	-11.1	„ GW, 9.1
22	43 751	9.0		56	9.0	+5 19	-33.9	
23	42 771	8.6		57	9.1	+1 52	-56.5	
24	43 704	9.0		59	9.1	-3 4	- 1.7	
25	42 768	8.9		60	9.2	+1 23	-53.0	
26	43 705	9.0		60	9.2	-2 58	+ 5.7	dpl.
27	43 749	9.0		60	9.2	+5 10	-24.4	
28	44 724	9.0		60	9.2	+3 53	+21.9	„ WG, 9.1
29	43 748	9.0		62	9.2	+5 3	+ 4.1	
30	43 740	8.8		62	9.2	+3 23	+ 2.4	„ GW, 9.2
31	43 733	9.1	(9.30)	66	9.3	+1 0	-19.5	
32	43 731	9.1	9.32	68	9.4	+0 40	-11.0	
33	43 742	9.0		69	9.4	+4 7	+13.9	
34	43 707	9.2		70	9.4	-2 36	+11.8	
35	+43 714	9.2		75	9.6	-1 32	+19.1	

Num.	BD.		HP.	Gradus	Magn.	$\Delta\alpha$	$\Delta\delta$	Notae
36	+43° 719	9 <sup>M</sup> .1	9 <sup>M</sup> .30	77	9 <sup>M</sup> .6	-0 <sup>m</sup> 51 <sup>s</sup>	+11'.2	
37	43 718	9.4		80	9.7	-1 2	+14.7	
38	43 713	9.4		83	9.8	-1 45	- 5.9	
39	43 725	9.5	9.82	87	9.9	-0 16	+10.0	
40	43 727	9.5		87	9.9	+0 9	-27.5	
41	43 716	9.5	10.04	89	10.0	-1 9	+ 4.2	
42				89	10.0	-3 0	-23.9	
43				91	10.1	-3 5	-20.8	
44	43 715	9.5		92	10.1	-1 16	-26.5	
45	43 712	9.4		92	10.1	-1 53	+ 8.4	
46	43 717	9.4		94	10.2	-1 3	+ 9.7	
47	43 708	9.5		95	10.2	-2 16	+ 2.3	
48	43 735	9.5		96	10.3	+2 24	-12.5	
49	43 734	9.5	10.46	97	10.3	+1 21	+ 0.9	dpl.
50	43 711	9.5	10.19	98	10.3	-1 54	+ 6.9	
51	44 694	9.5		98	10.3	-2 14	+23.9	
52	43 738	9.5		101	10.4	+3 2	-28.5	
53	43 737	9.5		103	10.5	+2 43	-25.5	
54	43 724	9.5		107	10.6	-0 16	+15.5	
55	44 716	9.5		113	10.9	+2 3	+20.3	
56	+43 706	9.5				-2 51	-23.7	***
Nova	Persei					+3 29	-15.9	1901, > 1 <sup>M</sup>

\* Vide notam in PD. III 719.

\*\*  $\Sigma$  391; AGC. 5'', comes 8<sup>M</sup>.8.

\*\*\* Stella 56 nunc (1904) est 12<sup>ae</sup> magnitudinis; fortasse BD + 43° 706 = (42 + 56).

1279

## U Camelopardalis

3<sup>h</sup> 29<sup>m</sup> 23<sup>s</sup> (1855.0) +62° 10'.4

Variatio irregularis.

Num.	BD.		HP.	Gradus		Magn.	$\Delta\alpha$	$\Delta\delta$	Notae
1	+62° 604	5 <sup>M</sup> .3	4 <sup>M</sup> .96	0		5 <sup>M</sup> .0	+ 4 <sup>m</sup> 5 <sup>s</sup>	+42'.3	PD. WG, 4 <sup>M</sup> .0, (gw)
2	62 597	5.0	5.32	6		5.2	+ 0 16	+34.1	„ G, 5.1, (wg)
3	62 612	6.5	5.96	36		6.0	+ 7 38	+39.9	„ GW, 6.1
4	61 644	7.0	6.82	0	65	6.9	+10 29	-16.9	„ GW-, 6.9
5	61 600	7.0	7.22	5	75	7.2	- 9 30	-23.9	„ WG, 7.2
6	62 582	8.2		10	80	7.4	- 5 46	+37.7	(rg)
7	61 641	7.0	7.42	10	84	7.5	+ 8 16	-49.7	„ WG-, 7.5
8	63 426	7.5	7.68	15	94	7.8	- 7 16	+73.6	„ W+, 7.9
9	62 584	8.5		20	97	8.0	- 4 27	+16.7	
10	62 608	7.8	8.03	21	98	8.0	+ 5 27	- 9.7	
11	62 581	8.1		24	100	8.1	- 6 40	- 8.1	(g)
12	62 575	9.0		25	101	8.1	- 8 3	+46.6	
13	62 590	8.5	8.53	30	108	8.4	- 2 11	+29.6	
14	61 604	8.1		32	110	8.5	- 8 4	-30.1	
15	61 603	7.9		34	115	8.6	- 8 18	-26.1	
16	62 600	9.0		34	116	8.6	+ 1 45	+28.0	
17	62 579	8.5		39	123	8.8	- 7 6	- 0.1	
18	62 593	9.1	8.81	39	127	8.9	- 0 30	+16.4	
19	61 622	9.0		40	129	9.0	- 1 44	-16.1	
20	61 628	8.6	8.98	41	129	9.0	+ 0 23	-21.7	
21	62 601	9.1		43	132	9.1	+ 2 6	- 4.0	
22	61 624	9.1		45	134	9.2	- 0 49	-15.4	
23	62 599	9.1		47	134	9.2	+ 0 48	+17.2	
24	62 603	9.2		49	138	9.3	+ 2 57	+27.3	
25	61 633	9.1		52	139	9.4	+ 3 9	-22.7	
26	62 594	9.2	9.34	55	141	9.5	- 0 6	+ 3.4	
27	62 595	9.3	9.65	57	145	9.6	- 0 6	- 9.6	
28	62 591	9.4		59	145	9.6	- 1 44	+ 2.8	
29	61 614	9.3		59	148	9.7	- 4 17	-13.5	
30	62 589	9.5		63	150	9.8	- 2 15	+ 1.8	
31				64	153	9.9	- 2 21	+ 7.5	
32	62 598	9.3	9.95	65	154	10.0	+ 0 20	- 8.9	
33	61 613	9.5		69	154	10.1	- 4 30	-18.5	
34	62 588	9.5		69	155	10.1	- 2 32	+17.3	
35	+62 586	9.5		69	156	10.1	- 4 11	+ 6.4	

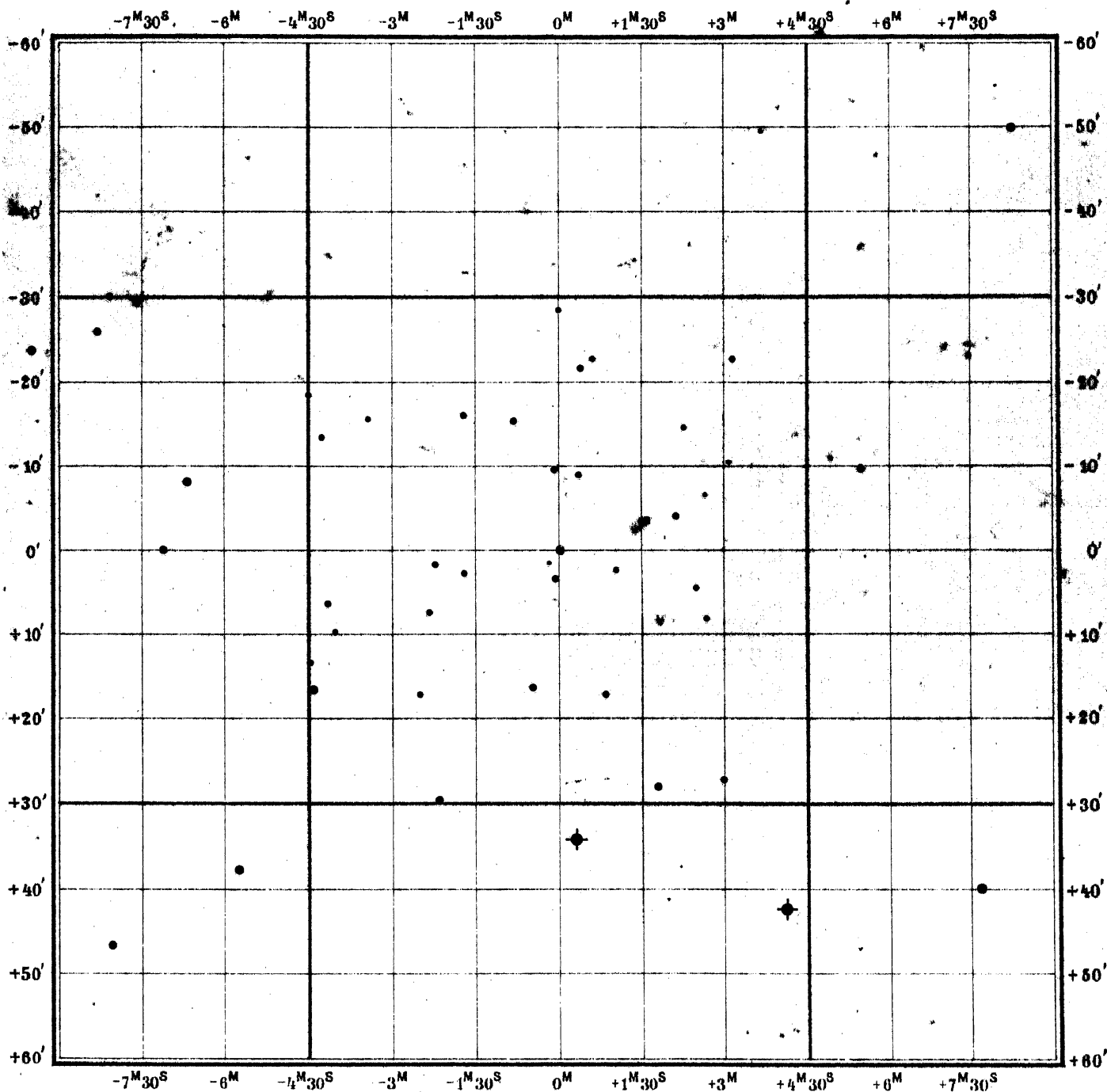
Num.	BD.		HP.	Gradus	Magn.	$\Delta\alpha$	$\Delta\delta$	Notae
36	+62° 587	9 <sup>M</sup> .5	10 <sup>M</sup> .32	70 156	10 <sup>M</sup> .1	-4 <sup>m</sup> 4 <sup>s</sup>	+ 9'.8	dpl.
37	62 583	9.4		70 156	10.1	-4 30	+13.5	
38	61 631	9.4		70 157	10.1	+2 16	-14.6	
39				73 160	10.3	+2 39	+ 8.2	
40	61 626	9.5		73 161	10.3	0 0	-28.5	dpl.
41				75 163	10.4	+0 36	-22.7	
42				76 161	10.4	+1 0	+ 2.4	
43				77 163	10.4	+2 27	+ 4.5	
44	61 616	9.5		79 163	10.5	-3 27	-15.7	
45	+62 602	9.5		83 169	10.7	+2 38	- 6.5	
46				87 173	10.9	+3 4	-10.5	
47				(117) —	11.7	-0 12	+ 1.6	

1279

# U Camelopardalis

(1900.0)  $3^h 33^m 12^s (+5.12)$   $+62^\circ 19.4$   $(+0.20)$

Color: 8.4, IV; Magnitudo:  $7\frac{1}{2}$ —9.



★ ✱ ▲ ● ● ● ● ● ● ● ● ● ●  
5 6 7 8 9 10 11

Series IV.

1375

## X Persei

 $3^h 46^m 20^s$  (1855.0)  $+30^\circ 36'.9$ Periodus longa (7<sup>a</sup>67)?

Num.	BD.		HP.	Gradus	Magn.	$\Delta\alpha$	$\Delta\delta$	Notae
1	+31° 666	3 <sup>M</sup> .0	2 <sup>M</sup> .91		2 <sup>M</sup> .9	-1 <sup>m</sup> 17 <sup>s</sup>	+50'.1	PD. GW+, 3 <sup>M</sup> .1, $\zeta$ Persei
2	30 582	6.5	6.22	0	6.2	-3 18	+ 7.0	„ GW-, 6.5
3	31 650	6.5	6.23	2	6.3	-7 35	+68.1	„ WG-, 6.5
4	31 649	6.8		7	6.5	-8 44	+73.6	„ WG-, 6.9
5	31 662	7.0	6.70	8	6.6	-2 47	+81.4	„ WG, 6.9
6	31 655	8.1		26	7.4	-6 18	+72.3	
7	29 659	8.0		32	7.6	+4 48	-79.5	
8	29 632	7.8		36	7.8	-5 8	-84.7	
9	29 635	8.1		39	7.9	-4 20	-83.8	
10	29 636	8.2		43	8.1	-3 9	-86.2	
11	31 652	8.0		44	8.1	-7 1	+54.2	
12	30 599	8.6		46	8.2	+4 18	+19.4	
13	29 660	8.7		48	8.3	+4 49	-87.2	
14	31 658	8.3		51	8.4	-4 56	+29.9	
15	30 600	8.8		57	8.7	+4 23	+19.7	
16	31 670	8.8		57	8.7	+0 32	+67.1	
17	31 669	8.8		60	8.8	+0 29	+66.6	
18	31 661	8.8		60	8.8	-3 8	+55.2	
19	30 577	8.8		61	8.9	-6 9	+ 3.6	
20	31 660	8.8		64	9.0	-3 16	+58.2	
21	31 659	8.6		66	9.1	-4 26	+66.9	
22	30 595	9.0	9.38	69	9.2	+3 11	+22.2	
23	30 603	8.9		69	9.2	+4 35	-36.4	
24	30 586	8.9	9.42	70	9.3	-1 46	-16.5	
25	30 579	9.0		76	9.5	-4 28	-21.8	
26	30 584	9.2		76	9.5	-3 5	+ 3.6	
27	31 664	8.8	9.55	78	9.6	-2 10	+26.5	
28	30 587	9.1	9.77	80	9.7	-1 32	+ 9.2	
29	30 589	9.0	9.62	81	9.8	-1 2	- 3.0	
30	30 592	9.2	9.74	84	9.9	+0 22	-21.8	
31	30 585	9.4		93	10.4	-2 7	-32.2	
32	30 590	9.5	10.74	99	10.7	-0 50	+ 3.0	
33	30 588	9.5	10.90	101	10.8	-1 7	-24.1	
34	+30 593	9.5	10.95	104	11.0	+0 48	-22.8	
35				(117)	(11.7)	-0 12	+ 1.6	

1438

## V Eridani

 $3^h 57^m 41^s$  (1855.0)  $-16^\circ 7'.5$ 

Variatio ignota.

Num.	BD.		HP.	Gradus	Magn.	$\Delta\alpha$	$\Delta\delta$	Notae
1	-16°	796	5.5 <sup>M</sup>		5.5 <sup>M</sup>	+5 <sup>m</sup> 1 <sup>s</sup>	-39'.0	
2	16	770	6.2		6.5	-0 9	-51.8	
3	16	791	7.7	0	7.4	+4 45	- 9.4	
4	16	782	7.8	5	7.6	+2 41	-15.5	
5	16	793	8.7	11	7.8	+4 51	-40.2	
6	15	717	8.0	12	7.9	+1 39	+60.1	
7	15	696	8.0	19	8.2	-4 59	+34.5	
8	15	715	8.5	20	8.2	+1 24	+46.1	
9	15	720	8.5	22	8.4	+3 11	+17.5	
10	16	755	8.3	27	8.5	-3 6	- 8.6	
11	16	767	8.4	32	8.7	-0 37	- 1.8	
12	15	708	8.6	36	8.9	-1 17	+34.7	
13	15	712	8.8	40	9.0	+0 19	+41.5	
14	16	765	8.7	45	9.2	-1 34	-28.8	
15	16	775	8.7	47	9.3	+1 6	+ 1.1	
16	16	757	9.0	54	9.6	-2 50	- 6.2	
17	16	752	9.0	58	9.8	-4 3	+ 6.5	
18	16	760	9.3	63	9.9	-2 22	-20.4	
19	15	705	9.3	67	10.1	-2 4	+21.8	
20	16	774	9.2	72	10.3	+0 54	+ 1.8	
21	16	772	9.3	76	10.5	+0 22	- 5.4	
22	16	763	9.5	80	10.7	-1 54	- 6.9	
23	15	714	9.7	84	10.9	+0 37	+17.1	
24	16	777	9.4	85	10.9	+1 43	- 3.3	
25	16	766	9.8	87	11.0	-1 15	-25.2	
26	16	768	9.7	93	11.3	-0 30	-31.9	
27	16	764	10	99	11.6	-1 53	-22.5	
28	-16	776	10	104	11.8	+1 35	- 5.3	



1752

## U Leporis

 $4^h 50^m 5^s$  (1855.0) —  $21^\circ 26'.9$ Periodus  $13^h 48^m ?$ 

Num.	BD.		HP.	Gradus	Magn.	$\Delta\alpha$	$\Delta\delta$	Notae
1	-21°	1003	7 <sup>M</sup> .0	6 <sup>M</sup> .93	6 <sup>M</sup> .9	-3 <sup>m</sup> 7 <sup>s</sup>	+26'.2	CD. 7 <sup>M</sup> .5
2	22	964	7.1	7.39	7.4	+1 49	-47.6	
3	20	961	8.4		8.5	-1 32	+49.3	
4	22	959	8.2		8.7	+0 42	-49.0	
5	21	1006	8.5		8.9	-2 43	-19.8	
6	20	955	9.0		9.0	-2 38	+55.4	,, 8.2
7	20	972	8.8		9.0	+1 44	+62.2	
8	20	953	8.8		9.0	-3 12	+56.0	
9	21	1005	8.5		9.1	-2 53	-27.1	
10	21	1013	8.9	9.11	9.2	-1 24	+ 2.3	
11	21	1000	8.8		9.2	-3 43	-22.0	
12	20	975	8.6		9.4	+2 25	+40.5	
13	21	1040	8.8		(26) 9.4	+3 58	+20.3	
14	20	966	8.8		9.5	+0 21	+44.8	
15	21	998	8.8		9.7	-3 49	+17.2	
16	21	1027	9.3		9.7	+1 1	+25.5	
17	20	977	8.8		9.7	+2 52	+34.4	
18	21	1014	9.1		9.8	-1 21	+ 1.3	
19	21	1023	9.1	10.01	9.8	+0 36	- 6.9	
20	21	1022	9.2	9.94	9.8	+0 33	- 7.4	
21	22	939	8.8		9.8	-3 12	-41.0	,, 9.1
22	21	1002	9.0		10.0	-3 13	-10.0	
23	21	1038	9.0		10.1	+3 29	-10.5	
24	22	969	8.8		10.2	+3 20	-38.3	
25	22	950	9.0		10.3	-1 2	-36.4	
26	22	948	8.8		10.4	-1 32	-53.7	,, 8.9
27	22	955	9.2		10.5	-0 11	-40.6	
28	22	952	9.0		10.6	-0 24	-53.4	
29	21	1020	9.3	10.52	10.7	+0 12	-29.1	
30	21	1018	9.2	10.07	10.7	-0 41	- 7.9	
31	21	1026	9.2		10.7	+0 59	- 4.7	
32	21	1021	9.4	10.62	10.7	+0 27	+ 7.8	
33	21	1011	9.1		10.8	-1 48	-10.8	
34	21	1028	9.4		10.8	+1 3	+ 6.7	
35	-21	1016	9.4		10.9	-0 46	- 9.2	

Num.	BD.		HP.	Gradus	Magn.	$\Delta\alpha$	$\Delta\delta$	Notae
36	-21° 1015	9. <sup>M</sup> 6	10. <sup>M</sup> 74	76	10. <sup>M</sup> 9	-1 <sup>m</sup> 2 <sup>s</sup>	-17.5	dpl.
37	21 1030	9.5		79	11.0	+1 39	-28.7	
38	21 1012	9.7	11.16	83	11.1	-1 27	-14.6	
39	21 1024	9.7	11.05	87	11.2	+0 45	-11.8	
40	21 1025	10	11.32	88	11.2	+0 55	- 0.7	
41	21 1029	10		91	11.3	+1 25	-26.9	
42	20 959	9.8		91	11.3	-1 53	+27.2	
43				92	11.4	+0 17	+ 5.7	
44			11.57	96	11.5	-0 4	+ 2.9	
45	-21 1017	9.7		96	11.5	-0 42	-26.5	
T	Leporis	var.				+8 35	-40.0	Ch. 1803 Seriei I <sup>ae</sup>

1771

## R Leporis

 $4^{\text{h}} 53^{\text{m}} 0^{\text{s}}$  (1855.0)  $-15^{\circ} 1'.7$ 
 $\text{Max.} = 2401936^{\text{d}}.7 + 436^{\text{d}}.1 \text{ E (Inaequalitas periodica).}$ 

Num.	BD.		HP.	Gradus		Magn.	$\Delta\alpha$	$\Delta\delta$	Notae
1	$-14^{\circ}$	1003	$6^{\text{M}}.3$	$5^{\text{M}}.87$	0 0	$6^{\text{M}}.0$	$-1^{\text{m}}53^{\text{s}}$	+34'.2	
2	14	1027	6.5	6.35	4	6.5	+4 15	+26.8	
3	14	1029	7.0	6.98	7	6.8	+4 19	+15.6	
4	15	938	7.5	7.50	14	7.3	+5 1	- 7.7	
5	15	910	7.7	7.56	20 22	7.5	-1 0	+ 1.4	
6	15	903	7.7		28 25	7.7	-3 38	- 4.8	
7	15	904	7.7	7.82	31 26	7.8	-3 9	-34.9	
8	15	931	8.0		41	8.3	+4 9	-53.3	
9	16	1022	8.3		42	8.3	+0 39	-65.8	
10	16	1018	8.3		47 36	8.4	+0 27	-59.3	
11	14	1004	8.8		50 40	8.5	-1 26	+34.2	
12	15	914	8.4	8.72	54 43	8.6	-0 16	-56.4	
13	14	1005	8.7		63 48	8.7	-1 23	+21.2	
14	14	1002	8.8		66 47	9.0	-2 1	+21.9	
15	15	927	8.5	9.07	66 50	9.1	+2 56	-53.3	
16	15	917	9.0	9.08	66 51	9.1	+0 14	-34.1	
17	15	912	9.0		66 54	9.2	-0 38	+ 1.3	
18	15	921	9.0		73 58	9.4	+0 59	-56.4	
19	15	916	9.0	9.44	80 59	9.5	+0 11	-18.3	
20	14	1008	9.1		80 60	9.6	-0 26	+28.8	
21	14	1011	9.1		83 62	9.7	-0 4	+18.1	
22	14	1014	9.4		86 65	9.8	+1 15	+ 4.2	
23	15	923	9.4		96 68	10.0	+1 29	- 3.4	
24	15	922	9.3	10.04	98 68	10.1	+1 6	- 1.5	
25	14	1009	9.4		98 69	10.1	-0 17	+ 5.7	
26	14	1013	9.4		100 72	10.2	+0 39	+ 3.5	
27	15	911	9.6	10.17	104 73	10.3	-0 55	-22.9	
28	15	918	9.7	10.67	107 77	10.5	+0 26	-18.1	
29	15	920	9.8		111 78	10.6	+0 38	- 8.8	
30	14	1015	9.8		112 82	10.7	+1 18	+22.0	
31	-14	1006	9.9		117 85	10.9	-1 10	+15.9	dpl.

1929

## Y Aurigae

 $5^{\text{h}} 18^{\text{m}} 20^{\text{s}}$  (1855.0)  $+42^{\circ} 18'.5$ Max. =  $2415420^{\text{d}}.64 + 3^{\text{d}} 20^{\text{h}} 36^{\text{m}} 58^{\text{s}}$  E. \*

Num.	BD.		HP.	Gradus	Magn.	$\Delta\alpha$	$\Delta\delta$	Notae
1	+41°	1162	6 <sup>M</sup> .0	5 <sup>M</sup> .12	5 <sup>M</sup> .1	-6 <sup>m</sup> 49 <sup>s</sup>	-38'.8	PD. GW-, 5 <sup>M</sup> .4, $\rho$ Aurigae
2	41	1206	6.7	6.09	6.1	+2 12	-58.1	" WG+, 6.1
3	41	1218	6.8	6.30	6.3	+4 50	-19.0	" GW, 6.6
4	42	1298	6.9	6.76	6.8	+0 21	- 9.9	" WG, 6.7
5	43	1272	6.8	6.75	6.8	-1 5	+55.7	" GW, 6.9
6	43	1310	7.5	7.34	7.3	+6 36	+49.1	" WG, 7.4
7	41	1181	8.2		7.6	-4 7	-37.2	
8	43	1265	8.3		7.8	-2 51	+47.3	
9	42	1312	8.0	10	8.0	+3 19	+ 4.1	
10	42	1317	7.5	7.88	8.1	+3 38	- 0.7	" GW, 8.3
11	42	1274	8.0		8.1	-4 17	+ 9.8	
12	42	1323	8.3		8.3	+4 6	+32.1	
13	42	1273	8.5		8.4	-4 21	+ 9.4	
14	42	1291	8.2	8.62	8.4	-0 44	- 6.1	St. W. 8 <sup>M</sup> .2 *
15	42	1334	8.4		8.5	+5 45	+ 1.0	
16	41	1175	8.7		8.6	-5 0	-50.9	
17	42	1301	9.0	8.98	8.7	+0 55	-15.7	" 8.9
18	42	1300	8.5	8.87	8.7	+0 42	-12.1	
19	42	1305	9.0		8.9	+1 15	-13.1	" 8.5
20	42	1308	8.3		8.9	+2 25	+29.3	
21	42	1309	8.8		9.1	+2 52	+25.8	
22	42	1290	9.0	9.25	9.2	-1 5	+ 7.1	
23	42	1292	8.8	9.22	9.2	-0 32	+27.2	
24	42	1288	9.0		9.4	-1 23	- 8.6	
25	42	1304	9.0		9.4	+1 17	+11.2	
26	42	1307	9.1	9.63	9.6	+1 59	+19.2	
27	42	1285	9.3	9.65	9.7	-2 7	+13.9	
28	42	1302	9.4	10.12	9.8	+0 58	- 6.5	" 9.7
29	41	1208	9.4		9.8	+2 32	-23.7	
30	42	1287	9.4		9.8	-1 31	+21.6	
31	42	1284	9.5		9.9	-2 17	+15.4	
32	42	1283	9.5		10.0	-2 30	-15.4	
33	42	1297	9.5	10.11	10.2	+0 6	0.0	" 9.5
34	42	1294	9.5	10.40	10.2	-0 23	-11.1	
35	42	1289	9.5		10.4	-1 12	+27.1	
36	+42	1306	9.5		10.7	+1 19	+22.1	

\* Stanley Williams, MN. LXV, pp. 253-264.

2038

## Y Tauri

5<sup>h</sup> 37<sup>m</sup> 1<sup>s</sup> (1855.0) + 20° 37'.8

Variatio ignota.

Num.	BD.		HP.	Gradus	Magn.	$\Delta\alpha$	$\Delta\delta$	Notae
1	+20° 1105	7 <sup>M</sup> .3	5 <sup>M</sup> .94	0	6 <sup>M</sup> .3	+2 <sup>m</sup> 42 <sup>s</sup>	+10'.9	PD. W+, 6 <sup>M</sup> .2
2	20 1095	7.4	7.20	25	7.0	+1 18	-24.6	„ WG+, 7.3
3	21 1003	7.9		31	7.2	+3 32	+27.0	
4	20 1100	8.0		35	7.3	+1 59	+15.1	
5	20 1093	7.3	7.90	40	7.4	+1 8	-31.1	„ GW-, 7.9
6	21 978	8.0		45	7.6	+0 20	+37.5	AGC. dpl. 1''
7	21 979	8.5		51	7.8	+0 23	+35.6	
8	20 1085	8.2	8.09	60	8.1	+0 21	-26.6	
9	20 1054	8.3		63	8.2	-3 14	- 5.4	
10	20 1106	8.5		65	8.2	+2 44	+ 9.7	
11	20 1073	8.2	8.09	68	8.3	-0 52	- 9.4	
12	21 995	8.5		68	8.3	+2 25	+22.4	
13	20 1082	8.5		69	8.4	-0 5	-11.1	
14	21 958	9.1		71	8.4	-0 45	+45.8	
15	21 946	8.3		75	8.6	-2 19	+43.0	
16	21 945	9.1		78	8.6	-2 30	+42.4	
17	20 1108	8.5		79	8.7	+2 54	-26.7	
18	20 1091	8.5	8.57	82	8.8	+0 54	-23.2	
19	20 1049	8.8		83	8.8	-3 43	-12.2	
20	21 981	8.8		89	9.1	+1 4	+30.5	
21	20 1068	9.2		91	9.2	-1 32	+ 9.1	
22	20 1087	8.7	9.36	93	9.2	+0 24	-24.7	
23	20 1096	8.9		94	9.3	+1 34	- 2.9	
24	20 1070	8.9	9.14	96	9.3	-0 58	+ 0.3	AGC. dpl.
25	20 1064	8.8		97	9.4	-2 1	-11.6	
26	20 1094	8.8		99	9.5	+1 14	+ 6.9	
27	20 1065	8.8		104	9.7	-2 1	-16.2	
28	20 1069	9.4		109	9.8	-1 18	- 8.7	
29	20 1063	9.1		110	9.9	-2 4	- 0.6	
30	20 1092	9.3		111	9.9	+1 7	-22.2	
31	20 1086	9.2	10.10	114	10.0	+0 22	-28.3	
32	21 952	9.5		116	10.1	-1 23	+29.1	dpl.
33	20 1089	9.4		121	10.3	+0 31	-15.9	
34	20 1081	9.5		122	10.4	-0 23	+17.7	
35	+20 1084	9.4	10.56	122	10.4	+0 20	+21.8	

Num.	BD.		HP.	Gradus	Magn.	$\Delta\alpha$	$\Delta\delta$	Notae
36	+21°	986	9 <sup>M</sup> .5	123	10 <sup>M</sup> .4	+1 <sup>m</sup> 43 <sup>s</sup>	+29'.1	
37	20	1097	9.5	124	10.4	+1 35	-25.8	
38	20	1066	9.5	124	10.4	-1 52	- 1.2	
39	20	1074	9.5	126	10.5	-0 50	+19.3	
40	20	1071	9.3	126	10.5	-0 57	+ 1.3	
			10 <sup>M</sup> .46					
41	20	1090	9.5	129	10.6	+0 35	+ 1.8	
42				129	10.6	+0 37	- 0.2	
43	20	1099	9.5	131	10.7	+1 51	+ 0.7	
44	20	1088	9.5	132	10.8	+0 30	-17.3	
45	20	1076	9.5	132	10.8	-0 38	+12.2	
46	20	1080	9.5	132	10.8	-0 27	+ 1.2	
47	20	1077	9.5	135	10.9	-0 38	+15.7	
48	20	1072	9.5	136	10.9	-0 53	- 3.5	
49	20	1075	9.5	139	11.1	-0 42	+12.3	
50	20	1067	9.5	140	11.1	-1 39	-23.8	
51	20	1079	9.5	141	11.2	-0 36	+23.6	
52	+20	1078	9.5	143	11.3	-0 37	+19.5	

Y Tauri = Krüger 510.

2122

## Z Aurigae

5<sup>h</sup> 50<sup>m</sup> 0<sup>s</sup> (1855.0) + 53° 17'.4Max. = 2416 264<sup>d</sup> + 112<sup>d</sup>8 E.

Num.	BD.		HP.	Gradus	Magn.	$\Delta\alpha$	$\Delta\delta$	Notae
1	+54°	970	4. <sup>M</sup> 0	3. <sup>M</sup> 88	3. <sup>M</sup> 9	-2 <sup>m</sup> 22 <sup>s</sup>	+58'.7	PD. WG+, 4. <sup>M</sup> 0, $\delta$ Aurigae ,, WG+, 6.3 ,, GW-, 7.1
2	54	971	7.0	6.26	6.3	-2 6	+74.3	
3	53	981	7.0	6.85	6.9	+1 22	+14.4	
4	53	962	8.0		0 7.8	-6 9	+ 8.4	
5	53	966	8.2		5 8.0	-5 27	+14.1	
6	54	959	8.3		9 8.2	-5 29	+57.4	
7	53	967	8.5		13 8.3	-5 12	+ 1.1	
8					18 8.5	-6 6	+ 8.0	
9	52	1019	8.9		18 8.5	-2 47	-49.0	
10	52	1021	8.4		20 8.6	-2 19	-53.4	
11	53	989	8.0		20 8.6	+6 33	- 8.8	
12	53	976	8.7		23 8.7	-2 15	+14.6	
13	53	983	9.0		24 8.7	+1 41	+27.8	
14	52	1035	8.5		25 8.8	+7 24	-51.9	
15	53	985	8.5		28 8.9	+2 33	+16.1	
16	52	1023	8.5		31 9.0	-1 41	-57.9	
17	52	1024	8.8		34 9.1	-1 22	-56.2	
18	53	986	9.0		35 9.2	+2 59	+32.2	
19	53	978	9.1	9.40	39 9.3	-1 15	- 5.3	
20	52	1022	9.0		40 9.3	-2 18	-37.0	
21	53	984	9.2	9.48	43 9.5	+1 45	- 1.6	
22	53	973	9.1		44 9.5	-3 30	+ 2.5	
23	52	1020	8.9		46 9.6	-2 29	-42.5	
24				10.02	48 9.7	+0 37	-10.5	
25	53	982	9.1	9.51	51 9.8	+1 34	- 5.7	
26	53	975	9.1		51 9.8	-2 40	+35.1	
27					52 9.8	-1 48	- 9.0	
28	52	1030	9.4		57 10.0	+1 13	-30.0	
29	53.	977	9.4	9.85	58 10.0	-2 0	- 0.3	
30					65 10.3	+0 20	-20.4	
31	53	980	9.5		68 10.4	+0 44	-16.3	
32				10.51	70 10.5	+0 1	- 6.2	
33					70 10.5	-1 50	- 8.7	
34	52	1028	9.4		72 10.6	+0 13	-29.1	
35	+53	979	9.3	10.66	72 10.6	+0 3	- 0.5	

Num.	BD.		HP.	Gradus	Magn.	$\Delta\alpha$	$\Delta\delta$	Notae
36			10 <sup>M</sup> .82 10.78	76	10 <sup>M</sup> .7	-1 <sup>m</sup> 35 <sup>s</sup>	+ 0'.7	
37				79	10.9	+0 31	- 1.5	
38				80	10.9	-0 37	+ 0.2	
39				83	11.0	-1 0	- 4.2	
40				87	11.2	+1 14	- 3.9	
41				89	11.3	+1 7	-10.2	
42				97	11.6	-0 50	+ 1.4	
43				102	11.8	-0 31	- 1.2	



2170

## S Leporis

5<sup>h</sup> 59<sup>m</sup> 47<sup>s</sup> (1855.0) — 24° 11.1

Periodus irregularis.

Num.	CD.		HP.	Gradus		Magn.	$\Delta\alpha$	$\Delta\delta$	Notae	
1	-23°	3431	5 <sup>M</sup> .8	5 <sup>M</sup> .50	0	0	5 <sup>M</sup> .5	+0 <sup>m</sup> 44 <sup>s</sup>	+65'.2	(r)
2	22	2806	7.1	5.71	4	9	5.7	+3 58	+85.7	
3	25	2865	6.3	5.90	11	14	5.9	-4 29	-74.0	
4	23	3263	6.7	6.41	16	20	6.1	-9 14	+57.4	
5	23	3577	7.1	6.41	21	23	6.4	+7 59	+20.9	
6	24	3699	7.1	6.93	31	33	6.9	+1 1	-43.9	
7	23	3373	7.5	7.43	38	38	7.1	-2 47	+58.1	
8	23	3436	8.2		38	41	7.2	+1 3	+66.3	
9	23	3432	8.1		43	41	7.3	+0 51	+40.1	
10	25	2978	7.6		47	45	7.5	+4 15	-85.3	
11	25	2955	7.4	7.48	49	46	7.5	+2 27	-73.0	dpl. *
12	25	2909	8.0		55	50	7.8	-0 27	-50.0	
13	25	2983	7.8		57	54	7.9	+4 38	-76.7	
14	24	3745	8.4		67	60	8.3	+3 44	- 2.8	
15	24	3685	8.4		71	64	8.5	+0 18	-43.6	
16	23	3478	8.9		74	64	8.7	+3 1	+25.6	
17	24	3728	8.4		77	64	8.7	+2 45	- 7.5	
18	23	3443	8.8		79	66	8.7	+1 21	+41.1	
19	23	3460	8.8		82	72	9.0	+2 10	+34.8	
20	24	3698	9.0	9.65	90	87	9.5	+0 58	+ 2.3	
21	24	3703	9.0	9.59	92	91	9.7	+1 9	+ 2.6	
22	23	3403	9.0		94	101	10.0	-0 41	+24.8	
23	24	3668	9.3	10.52	99	107	10.4	-0 45	-29.3	
24	33	3425	9.7		99	107	10.4	+0 28	+14.3	
25	23	3395	9.4		100	109	10.4	-1 13	+22.1	
26	24	3654	9.4	10.29	104	109	10.5	-1 44	- 8.2	
27	24	3709	9.5		108	111	10.7	+1 34	- 1.0	
28	24	3670	9.5	10.90	108	111	10.7	-0 35	+ 7.0	
29	24	3687	9.4		112	111	10.8	+0 29	-28.5	
30	24	3694	9.8		112	112	10.8	+0 52	-25.9	
31	24	3693	9.7		114	114	10.9	+0 52	+ 4.4	
32	24	3677	9.4		117	114	11.0	-0 10	-31.5	
33	23	3388	9.5		117	116	11.1	-1 43	+20.5	
34	23	3424	9.8		117	119	11.2	+0 27	+15.3	
35	24	3669	9.2	11.24	119	120	11.3	-0 38	-18.6	
36	24	3667	9.8		119	120	11.3	-0 47	- 9.3	
37	-24	3665	9.8		122	123	11.6	-0 51	- 9.3	

\* Cord. G.C.: 0<sup>s</sup>.34, 2<sup>s</sup>.6.

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## V Monocerotis

 $6^h 15^m 25^s$  (1855.0)  $-2^\circ 7'.6$ Max. =  $2\,408\,853^d + 332^d 0\text{ E.}$ 

Num.	BD.		HP.	Gradus		Magn.	$\Delta\alpha$	$\Delta\delta$	Notae
1	$-2^\circ$	1564	$5^M.5$	$5^M.18$	0	$5^M.1$	$-2^m 42^s$	$-45'.4$	(r)
2	1	1242	6.5	5.73	0	16	5.8	+3 54	+41.9
3	3	1430	7.4	6.54	10		6.4	+3 30	-78.9
4	3	1413	7.2	6.58	15		6.6	+0 20	-64.9
5	2	1601	7.0	6.68	18	34	6.7	+2 53	-47.4
6	1	1231	7.2	6.56	24	35	6.8	+1 49	+46.9
7	1	1188	7.9		35	49	7.5	-3 38	+49.2
8	1	1207	8.0	7.78	38	57	7.8	-1 26	+58.3
9	1	1198	8.0		41	57	7.8	-2 28	+ 8.1
10	2	1579	7.8	7.81	43	61	7.9	-0 12	-30.9
11	1	1201	8.3		44	63	8.1	-2 14	+49.4
12	1	1205	8.8		46	66	8.2	-1 31	+48.4
13	1	1236	8.5		46	66	8.2	+3 15	+23.3
14	1	1199	8.3		46	67	8.2	-2 23	+53.6
15	1	1215	8.5	8.53	50	69	8.4	-0 28	+42.0
16	1	1213	8.8		50	70	8.4	-0 41	+37.3
17	1	1217	8.8		54	71	8.5	-0 23	+29.4
18	1	1189	8.8		54	72	8.5	-3 28	+48.2
19	1	1192	8.5		54	74	8.6	-3 3	+58.8
20	1	1212	8.7	8.75	57	75	8.7	-0 43	+ 9.8
21	2	1583	8.8	8.93	62	79	8.9	+0 27	-27.0
22	1	1216	9.0		66	84	9.1	-0 26	+24.5
23	2	1580	9.1		69	86	9.2	-0 9	+ 5.9
24	2	1570	9.1		74	89	9.3	-1 46	- 7.9
25	2	1578	9.0		77	90	9.4	-0 27	-14.4
26	2	1589	9.2	9.42	81	92	9.5	+1 19	-13.2
27	2	1574	9.5		86	97	9.8	-1 31	- 0.8
28	1	1203	9.5		86	102	9.9	-1 58	+17.3
29	1	1229	9.3		87	103	10.0	+1 24	+15.1
30	1	1223	9.5		89	109	10.2	+0 48	+19.9
31	2	1584	9.5	10.30	93	107	10.3	+0 30	-18.7
32	1	1222	9.5		93	107	10.3	+0 37	+13.1
33	2	1586	9.6		95	109	10.4	+0 36	- 8.4
34	1	1206	9.5		96	109	10.4	-1 28	+22.6
35	-1	1211	9.5		95	111	10.4	-0 54	+30.1

SD. -  $1^\circ 154$ ,  $8^M.1$   
(r)SD. -  $1^\circ 155$ ,  $8^M.5$  \*SD. -  $1^\circ 158$ ,  $9^M.6$

Num.	BD.		HP.	Gradus		Magn.	$\Delta\alpha$	$\Delta\delta$	Notae
36	-2° 1577	9 <sup>M</sup> .8		100	113	10 <sup>M</sup> .5	-0 <sup>m</sup> 35 <sup>s</sup>	-26'.5	
37				101	114	10.6	+0 52	+ 0.7	
38	1 1225	9.5		102	116	10.7	+1 6	+14.8	
39	1 1214	9.5		102	117	10.7	-0 34	+ 9.2	SD. - 1° 156, 9 <sup>M</sup> .5
40	2 1590	9.5		108	118	10.8	+1 20	+ 7.6	
41				108	118	10.8	-0 6	- 6.7	
42				109	119	10.9	+0 34	+ 8.1	SD. - 1° 157, 9 <sup>M</sup> .8
43	2 1575	9.8		111	119	10.9	-0 49	-19.6	
44				113	120	11.0	+0 12	+ 1.8	
45	2 1576	10		113	122	11.1	-0 38	-14.7	
46	-2 1572	10		114	125	11.2	-1 37	+ 4.4	
47				114	125	11.2	-0 43	- 5.9	
48				117	127	11.3	+0 10	+ 3.8	
49				123	132	11.6	-0 9	+ 4.4	
50				133	144	12.2	-0 6	+ 2.9	

Vide etiam Seriem I.

\* Dpl., Cord. G. C., 0<sup>s</sup>.2, 8".

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## T Monocerotis\*

 $6^h 17^m 23^s$  (1855.0) +  $70^\circ 9'.6$ Max. =  $2\,409\,633^d.63 + 27^d.0122$  E.

Num.	BD.		HP.	Gradius		Magn.	$\Delta\alpha$	$\Delta\delta$	Notae
1	+7° 1337	5 <sup>M</sup> .0	4 <sup>M</sup> .50			4 <sup>M</sup> .5	+7 <sup>m</sup> 41 <sup>s</sup>	+ 16'.1	PD. W, 4 <sup>M</sup> .7, 13 Monoc. ,, W, 6.5
2	8 1316	6.4	6.11			6.1	-1 15	+107.8	
3	6 1254	7.9		0	0	7.3	+2 59	- 67.2	
4	6 1253	7.8		4	6	7.5	+2 53	- 69.4	(r)
5	6 1246	8.5		10	10	7.8	+2 3	- 34.2	
6	6 1236	8.3		14	14	8.0	+0 25	- 47.8	
7	7 1266	8.2		19	14	8.1	-1 0	+ 48.4	
8	7 1267	8.6	8.49	29	22	8.5	-0 58	- 0.9	
9	7 1260	9.0		26	24	8.5	-1 47	+ 24.9	
10	7 1281	8.8	8.78	32	25	8.7	+0 49	+ 22.7	
11	6 1229	9.0	8.98	36	29	8.9	-0 27	- 14.7	
12	6 1243	9.2		37	29	8.9	+1 39	- 17.9	
13	7 1265	9.2	9.00	40	29	9.0	-1 14	+ 10.2	
14	6 1240	9.2		42	30	9.1	+1 4	- 25.5	
15	6 1234	9.0	9.02	42	30	9.1	+0 15	- 15.0	
16	7 1290	9.1	9.24	46	34	9.3	+1 31	+ 1.3	
17				48	36	9.4	-1 51	+ 24.3	
18	6 1244	9.5		50	37	9.5	+1 52	- 16.5	
19	6 1239	9.4		52	39	9.6	+0 54	- 13.5	
20	7 1268	9.5		52	39	9.6	-0 53	- 2.0	
21	7 1269	9.5		54	39	9.7	-0 42	+ 20.7	
22	6 1231	9.5		55	40	9.7	-0 5	- 27.9	dpl.
23	6 1238	9.3	9.70	58	40	9.7	+0 44	- 9.8	
24				58	41	9.8	+0 26	+ 6.9	
25	6 1226	9.5		63	42	10.0	-0 59	- 20.4	
26	7 1276	9.5	10.09	63	43	10.0	+0 8	- 5.3	
27	6 1223	9.5		65	43	10.0	-1 49	- 29.8	
28	7 1283	9.4		65	44	10.1	+0 57	+ 1.0	
29				67	45	10.2	-1 19	0.0	
30				70	45	10.2	-0 51	+ 23.9	
31	7 1292	9.5		70	45	10.2	+1 52	+ 5.4	
32	7 1289	9.5		72	46	10.3	+1 19	- 1.0	
33				71	47	10.4	-0 20	+ 1.4	
34	7 1282	9.4		75	47	10.5	+0 56	+ 3.5	
35	+6 1233	9.4	10.50	75	47	10.5	+0 14	- 15.4	

Num.	BD.		HP.	Gradus		Magn.	$\Delta\alpha$	$\Delta\delta$	Notae
36	+7° 1286	9 <sup>M</sup> .5	10 <sup>M</sup> .45	77	47	10 <sup>M</sup> .5	+1 <sup>m</sup> 13 <sup>s</sup>	+ 3'.3	
37	7 1271	9.5		79	47	10.5	-0 35	+11.4	
38	7 1270	9.5		81	48	10.6	-0 41	+25.7	
39	7 1285	9.5		82	48	10.6	+1 11	- 3.7	
40				82	49	10.7	+0 13	- 6.0	
41	+7 1261	9.5		82	49	10.7	-1 39	- 3.3	
42				84	50	10.8	-0 3	+ 5.4	
43				86	50	10.8	-0 16	- 3.6	

\* Vide Ch. VI. Seriei V<sup>ac</sup>.

BD. + 7° 1288, 9<sup>M</sup>.5 delenda?

## Z Monocerotis

6<sup>h</sup> 25<sup>m</sup> 53<sup>s</sup> (1855.0) — 8° 46'.2

Variatio ignota.

Num.	BD.		HP.	Gradus	Magn.	$\Delta\alpha$	$\Delta\delta$	Notae
1	-8° 1462	5 <sup>M</sup> .5	5 <sup>M</sup> .59		5 <sup>M</sup> .6	- 1 <sup>m</sup> 0 <sup>s</sup>	+42'.7	
2	9 1493	6.3	6.13		6.1	- 2 34	-72.9	
3	8 1469	7.5	7.20	0	7.2	+ 0 11	- 5.5	
4	9 1483	7.7		2	7.2	- 3 28	-20.6	
5	8 1496	7.0	7.15	4	7.2	+ 4 42	+38.9	
6	8 1499	7.5	7.30	10	7.4	+ 5 2	+ 6.2	
7	8 1486	8.0		19	7.6	+ 2 54	- 7.2	
8	8 1441	7.8		23	7.7	- 4 14	+23.8	
9	8 1448	8.6		26	7.8	- 3 35	+45.8	
10	9 1507	8.3		31	7.9	- 0 52	-45.9	
11	9 1537	8.1		35	8.1	+ 3 41	-56.9	
12	8 1443	8.3		36	8.1	- 4 2	+23.0	
13	7 1474	8.5		39	8.2	+ 1 36	+55.5	
14	8 1468	8.5		43	8.3	+ 0 3	+42.9	
15	8 1475	9.0		47	8.4	+ 0 45	+42.0	
16	9 1498	8.6		48	8.4	- 1 57	-47.2	AGC. dpl., 9 <sup>M</sup> .5 nf.
17	9 1529	8.5		51	8.6	+ 2 44	-29.6	
18	8 1480	8.8	8.60	54	8.6	+ 1 51	+16.1	
19	9 1519	8.7	8.62	58	8.8	+ 1 10	-29.1	
20	8 1471	8.9	8.62	60	8.8	+ 0 20	- 3.5	
21	8 1482	8.7		62	8.9	+ 2 11	+ 0.6	
22	8 1465	9.1		65	9.1	- 0 48	+30.9	
23	9 1533	8.6		66	9.1	+ 3 8	-34.2	AGC. dpl. 0 <sup>s</sup> .2, 7 <sup>"</sup> .7
24	8 1464	9.1	9.39	70	9.3	- 0 57	+25.8	
25	8 1472	9.5	9.45	73	9.4	+ 0 23	+11.6	
26	8 1473	9.4	9.41	73	9.4	+ 0 24	- 2.8	
27	9 1499	9.1		73	9.4	- 1 56	-23.1	
28	9 1505	9.3	9.64	74	9.5	- 1 9	-15.7	
29	8 1470	9.4		75	9.5	+ 0 13	+25.3	
30	8 1478	9.4		78	9.6	+ 1 19	+22.7	
31	8 1476	9.8		81	9.8	+ 0 45	+14.4	
32	8 1474	9.4		82	9.8	+ 0 35	+22.2	
33	8 1459	9.5	9.99	85	10.0	- 1 43	+ 1.6	
34	8 1477	9.5		87	10.1	+ 1 13	+ 7.1	
35	8 1461	9.8	10.37	90	10.3	- 1 8	+11.7	
36	8 1479	9.5		92	10.4	+ 1 42	+ 5.2	
37	9 1508	9.4		92	10.4	- 0 44	-23.0	
38	-9 1522	9.8	10.44	96	10.6	+ 1 45	-22.7	

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## W Geminorum

6<sup>h</sup> 26<sup>m</sup> 39<sup>s</sup> (1855.0) +15° 26'.3Max. = 1895 Mart. 14<sup>d</sup> 6<sup>h</sup> 45<sup>m</sup> + 7<sup>d</sup> 17<sup>h</sup> 46<sup>m</sup> E.

Num.	BD.		HP.	Gradus	Magn.	$\Delta\alpha$	$\Delta\delta$	Notae
1	+16°	1223	2 <sup>M</sup> .1	1 <sup>M</sup> .93	1 <sup>M</sup> .9	+2 <sup>m</sup> 42 <sup>s</sup>	+64'.6	PD. W, 2 <sup>M</sup> .3, $\gamma$ Geminor.
2	14	1339	6.0	5.61	5.6	-1 18	-70.6	„ WG, 5.7
3	16	1201	7.3	6.67	0	-0 6	+52.5	„ WG, 6.9
4	16	1178	6.6	6.37	2	-3 21	+33.9	„ GW, 6.6, 19 Geminor.
5	15	1230	7.5	7.13	15	-2 38	+22.2	„ WG, 7.4
6	15	1233	7.0	7.24	17	-2 17	-18.9	„ G, 7.4
7	15	1255	7.5	7.13	17	+1 30	+25.5	„ GW, 7.6
8	14	1344	7.4	7.44	24	-0 35	-34.8	„ GW, 7.7 *
9	15	1268	7.8		26	+3 59	- 6.7	
10	15	1223	7.9		27	-3 28	+30.9	
11	14	1338	8.2		30	-1 24	-44.6	
12	15	1224	7.9		31	-3 24	+ 5.0	
13	16	1214	8.5		32	+1 45	+59.8	
14	16	1174	8.2		32	-3 41	+57.2	
15	16	1226	8.6		35	+2 55	+39.9	
16	16	1175	8.5		38	-3 38	+45.2	
17	15	1221	8.1		41	-3 41	+23.9	
18	15	1263	8.2		41	+2 58	+26.9	
19	14	1377	8.5		45	+3 44	-42.6	
20	15	1229	8.0		45	-2 49	-13.2	
21	15	1244	8.6	8.22	45	-0 10	-15.1	
22	15	1261	8.5		46	+2 45	- 9.2	
23	15	1226	8.5		50	-3 14	+ 1.6	
24	15	1249	8.7	8.59	50	+0 28	+22.9	
25	15	1235	9.0	8.70	54	-1 59	- 9.3	
26	15	1236	9.0		55	-1 48	+29.6	
27	15	1251	8.9	8.87	59	+0 42	-20.6	
28	15	1241	9.3		64	-0 35	+22.4	
29	15	1252	9.3		66	+0 56	+ 4.4	
30	15	1245	9.4	9.81	68	-0 5	+ 2.0	
31	15	1242	9.3	9.54	69	-0 28	-14.8	
32	15	1256	9.5		71	+1 58	+26.9	
33	15	1238	9.2	9.42	71	-1 19	- 8.4	
34	15	1239	9.0	9.50	73	-1 4	-16.6	
35	+15	1237	9.2		73	-1 31	+ 3.1	

Num.	BD.		HP.	Gradus	Magn.	$\Delta\alpha$	$\Delta\delta$	Notae
36	+14° 1351	9 <sup>M</sup> .4		77	9 <sup>M</sup> .9	+1 <sup>m</sup> 9 <sup>s</sup>	-27'.5	
37	15 1240	9.1		78	10.0	-0 50	-23.0	
38	15 1243	9.3		80	10.1	-0 11	-22.9	
39	15 1254	9.4		84	10.2	+1 19	+17.5	
40	15 1247	9.4		84	10.2	+0 22	+13.2	
41	15 1248	9.5	10 <sup>M</sup> .44	85	10.3	+0 24	-23.9	
42				85	10.3	-0 19	+ 2.1	
43				87	10.5	+0 14	+12.9	
44	15 1253	9.5	10.28	87	10.5	+0 59	+ 1.0	
45	+15 1250	9.5		89	10.6	+0 31	+ 8.3	

\* AGC. dpl. 2.4;  $\Sigma$  932.



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## X Monocerotis

 $6^h 50^m 16^s$  (1855.0) —  $8^\circ 52'.6$ 

Variatio irregularis?

Num.	BD.		HP.	Gradus	Magn.	$\Delta\alpha$	$\Delta\delta$	Notae
1	-8° 1662	6 <sup>M</sup> .1	5 <sup>M</sup> .84	0	6 <sup>M</sup> .1	+3 <sup>m</sup> 10 <sup>s</sup>	+39'.9	
2	7 1642	6.4	6.44	7	6.4	-0 14	+53.1	
3	8 1667	6.8	6.36	9	6.5	+3 28	- 7.8	
4	8 1632	7.0	6.88	15	6.8	-0 38	+43.7	
5	8 1650	7.7	7.28	20	7.0	+0 55	+ 2.3	
6	9 1711	7.2	6.93	23	7.1	-3 26	-27.5	
7	7 1640	7.6		29	7.4	-0 34	+52.8	
8	9 1721	7.5	7.81	31	7.5	-2 51	-33.3	
9	9 1729	7.8		36	7.7	-1 59	-15.7	
10	9 1705	8.0		40	7.9	-3 52	-38.1	
11	8 1617	8.2		40	7.9	-2 6	+33.6	
12	8 1625	8.1		44	8.0	-1 42	+38.5	
13	8 1639	8.3	8.07	45	8.1	-0 4	+31.3	
14	8 1633	8.6	8.06	48	8.2	-0 32	+15.8	
15	9 1732	8.5		48	8.2	-1 33	- 8.0	
16	8 1620	8.5		50	8.4	-1 53	+25.1	
17	9 1733	8.2		57	8.6	-1 33	-25.6	AGC. dpl. 9 <sup>M</sup> .0
18	8 1649	9.0		59	8.7	+0 54	+13.1	
19	9 1765	8.9	8.56	61	8.8	+1 36	-16.3	
20	8 1628	8.8		65	9.0	-1 6	+30.9	
21	8 1652	9.2		66	9.0	+1 23	- 6.0	AGC. dpl. 9 <sup>M</sup> .0 & 9 <sup>M</sup> .2
22	8 1626	8.8		67	9.1	-1 33	+ 6.2	
23	8 1629	8.8		68	9.2	-1 2	+27.3	
24	8 1635	8.8		70	9.3	-0 27	+ 2.9	
25	9 1760	9.4		72	9.4	+1 12	-14.0	
26	8 1636	9.2		74	9.5	-0 26	+ 0.6	
27	8 1647	9.3	9.43	74	9.5	+0 29	+10.6	
28	8 1621	9.4		76	9.6	-1 50	+15.0	
29	9 1749	9.5		78	9.7	+0 17	-16.8	
30	9 1737	9.6		78	9.7	-0 44	-19.5	
31	8 1619	9.3		78	9.7	-1 56	+18.2	
32	8 1622	9.5		80	9.8	-1 48	+10.2	
33	9 1747	9.1		81	9.9	+0 14	-24.2	
34	9 1743	9.1		82	9.9	+0 8	-19.3	
35	-9 1752	9.4		84	10.0	+0 46	-27.2	

Num.	BD.		HP.	Gradus	Magn.	$\Delta\alpha$	$\Delta\delta$	Notae
36	-8° 1631	9 <sup>M</sup> .6	9 <sup>M</sup> .89	85	10 <sup>M</sup> .1	-0 <sup>m</sup> 55 <sup>s</sup>	+19'.2	
37	8 1634	9.5		87	10.2	-0 29	+29.1	
38	8 1637	9.4		87	10.2	-0 23	- 2.1	
39	8 1643	9.8		87	10.2	+0 5	- 0.5	
40	8 1653	9.5		88	10.3	+1 29	+ 8.4	
41	8 1655	9.7		89	10.3	+1 54	+25.7	
42	8 1643	9.5		89	10.3	+0 1	+17.7	
43	9 1751	9.8		89	10.3	+0 42	- 9.0	
44	9 1736	9.7		89	10.3	-0 48	-20.2	
45	9 1762	9.7		91	10.5	+1 24	-25.2	
46	8 1640	9.6	10.64	92	10.5	0 0	+ 3.0	
47	8 1656	9.7		92	10.5	+1 56	+11.9	
48	-8 1630	10		95	10.7	-0 56	- 2.9	
49				97	10.9	-1 0	0.0	
50				102	11.2	-0 35	- 6.5	

2539

## R Canis Minoris

 $7^h 0^m 44^s$  (1855.0)  $+10^\circ 14'.9$ Max. =  $2400\,089^d + 337^d.7$  E.

Num.	BD.		HP.	Gradus	Magn.	$\Delta\alpha$	$\Delta\delta$	Notae
1	$+9^\circ 15'10$	$6^M.6$	$6^M.02$	0 0	$6^M.0$	$-3^m 2^s$	$-50'.7$	PD. G, $5^M.9$
2	9 1539	7.4	6.88	22 24	6.8	+1 10	$-42.7$	„ G, 6.9, (rg)
3	11 1467	7.5	7.05	37 33	7.3	-0 15	+54.0	„ W, 7.4
4	9 1550	8.0	7.98	50 43	7.8	+2 9	$-38.5$	
5	10 1453	8.0		54 47	8.1	+3 47	+11.0	
6	10 1416	8.4	8.15	58 47	8.1	-1 37	- 8.9	
7	10 1429	8.3	8.49	67 51	8.5	+0 14	+ 1.4	
8	9 1531	8.9		74 64	8.9	+0 16	$-18.8$	
9	10 1439	8.9		79 65	9.0	+1 38	+ 4.6	
10	10 1417	9.1		82 68	9.1	-1 36	+ 7.9	
11	9 1541	9.0		85 68	9.1	+1 18	$-20.8$	
12	10 1432	9.0		85 68	9.1	+0 24	+ 9.9	
13	10 1422	9.0		85 70	9.2	-0 55	- 1.9	
14	10 1427	9.0	9.29	88 71	9.3	-0 12	+16.7	
15	10 1426	9.0		88 71	9.3	-0 15	$-15.0$	
16	10 1433	9.3	9.43	96 74	9.5	+0 32	+ 7.2	
17	10 1419	9.1		97 74	9.5	-1 22	+16.6	
18	10 1440	9.3		97 75	9.5	+1 48	$-18.7$	
19	9 1534	9.4		99 77	9.6	+0 23	$-22.9$	
20	10 1442	9.4		104 77	9.7	+1 57	- 9.5	
21	10 1423	9.4	9.80	106 79	9.8	-0 42	+18.1	
22	10 1421	9.5		106 79	9.8	-1 6	- 9.8	
23	10 1441	9.3		107 79	9.8	+1 51	+29.9	
24	10 1415	9.3		107 80	9.8	-2 0	+10.5	
25	10 1420	9.2		109 80	9.9	-1 20	+30.2	
26	9 1525	9.5		114 81	10.0	-0 41	$-16.5$	
27	9 1524	9.5		117 80	10.0	-0 44	$-23.2$	
28	9 1545	9.5		119 81	10.0	+1 52	$-18.3$	
29	10 1435	9.5	10.02	119 81	10.0	+0 54	+21.9	
30	10 1437	9.5		120 82	10.1	+1 17	+ 7.6	
31	9 1523	9.5		125 82	10.1	-0 47	$-27.8$	
32	9 1530	9.5		125 82	10.1	+0 4	$-15.7$	dpl.
33	+10 1434	9.5		125 83	10.2	+0 37	$-12.7$	
34				127 83	10.2	-0 42	+19.1	
35				128 84	10.2	-0 16	$-26.6$	

Num.	BD.		HP.	Gradus	Magn.	$\Delta\alpha$	$\Delta\delta$	Notae
36	+ 9° 1516	9 <sup>M</sup> .5		129 85	10 <sup>M</sup> .3	-1 <sup>m</sup> 59 <sup>s</sup>	-21'.1	
37	9 1528	9.5		134 85	10.3	-0 2	-15.7	
38	10 1418	9.5		134 85	10.3	-1 25	- 2.9	
39	10 1430	9.5		135 86	10.4	+0 17	+ 8.7	dpl.
40				145 100	10.9	+1 17	-14.1	
41	+10 1436	9.5		160 112	11.4	+1 9	-11.7	
V	Canis Min.	var.				-1 41	-69.3	Ch. 2530 Seriei II <sup>ae</sup>

## U Monocerotis

7<sup>h</sup> 23<sup>m</sup> 53<sup>s</sup> (1855.0) — 9° 28'.6Max. = 2 405 275<sup>d</sup> + 46<sup>d</sup>.10 E (Inaequalitas periodica).\*

Num.	BD.		HP.	Gradus		Magn.	$\Delta\alpha$	$\Delta\delta$	Notae
1	—10°	2067	5 <sup>M</sup> .5	6 <sup>M</sup> .00	0 0	5 <sup>M</sup> .8	—1 <sup>m</sup> 24 <sup>s</sup>	—33'.2	(g)
2	8	1964	6.0	6.02	15 5	6.2	+1 17	+54.3	
3	9	2086	7.0	6.98	27 19	6.7	+0 12	—19.8	(wg)
4	9	2069	6.8	6.59	34 24	6.9	—2 12	—16.3	(b)
5	9	2097	7.3	7.51	46 39	7.5	+1 56	+22.1	
6	8	1948	7.9		51 41	7.6	—0 13	+43.0	
7	9	2096	7.5	7.51	52 44	7.7	+1 54	+ 6.6	
8	9	2084	7.8	7.81	58 47	7.9	—0 5	+28.1	
9	8	1937	8.0	8.03	63 51	8.1	—1 13	+30.9	
10	9	2048	9.0		71	8.4	—3 53	+12.4	
11	9	2064	8.7	8.49	76	8.5	—2 43	+28.3	
12	8	1927	9.0		79	8.6	—2 26	+31.4	
13	9	2083	9.1		94 74	9.2	—0 18	—21.2	
14	9	2082	8.8	9.21	96 76	9.3	—0 24	+ 4.5	
15	9	2094	8.9		100 76	9.4	+1 22	—28.8	
16	9	2087	9.0	9.30	105 77	9.5	+0 27	—29.9	
17	9	2079	9.2		109 81	9.6	—1 0	—19.5	
18	9	2090	8.9		109 82	9.7	+0 50	—30.3	
19	9	2073	9.4		111 82	9.7	—1 41	+ 7.1	
20	9	2077	9.4		112 83	9.7	—1 22	+18.0	
21	9	2074	9.4		112 85	9.8	—1 39	—19.9	
22	9	2071	9.4		115 85	9.8	—1 59	—23.3	
23	9	2075	9.6		117 86	9.9	—1 35	+19.5	
24	9	2089	9.8		118 87	9.9	+0 32	+24.9	
25	9	2078	9.5		118 88	10.0	—1 15	—28.9	
26	9	2081	9.4	10.03	121 88	10.0	—0 35	—18.4	
27	9	2088	9.8	9.97	121 89	10.1	+0 28	—10.6	
28	9	2095	9.3	10.08	122 90	10.1	+1 46	—13.8	
29					128 87	10.1	—1 57	+ 8.4	
30					128 90	10.2	—1 33	+ 5.2	
31					126 90	10.2	—1 50	+ 6.3	
32	8	1967	9.7		124 93	10.2	+1 20	+29.9	
33	9	2080	9.7		133 89	10.3	—0 58	—27.1	dpl.
34	9	2072	9.8		131 90	10.3	—1 44	+ 2.3	
35	9	2076	9.8		133 93	10.4	—1 26	— 2.7	
36	9	2092	9.7	10.47	135 93	10.4	+1 19	+20.3	
37	9	2091	9.8		139 94	10.5	+1 5	—21.8	
38	— 9	2093	9.5		140 96	10.6	+1 21	—28.6	

\* Variatio irregularis (Pickering, Prov. Cat. 1903).

2899

## RU Puppis

 $8^h 1^m 13^s$  (1855.0) —  $22^\circ 29'.7$ 

Elementa variationis ignota.

Num.	BD. (CD.)		HP.	Gradus	Magn.	$\Delta\alpha$	$\Delta\delta$	Notae
1	—(23° 6828)	(3 <sup>M</sup> .2)	2 <sup>M</sup> .88		2 <sup>M</sup> .9	+ 0 <sup>m</sup> 7 <sup>s</sup>	—83'.6	UA. 3 <sup>M</sup> .2, $\varphi$ Puppis
2	(23 6846)	(6.7)	6.64		6.6	+ 0 52	—42.2	„ 6.7
3	22 2173	7.3	6.66		6.7	+ 2 45	+23.2	CD. 7.0
4	21 2284	7.7		0	7.2	+ 0 40	+46.7	
5	22 2142	7.8		6	7.4	— 2 29	+28.4	„ 7.8
6	21 2262	8.2		7	7.4	— 1 6	+41.0	
7	21 2245	7.6		14	7.7	— 3 26	+65.4	
8	22 2172	8.5		15	7.7	+ 2 15	+ 6.2	„ 8.1
9	22 2176	8.7		19	7.9	+ 2 53	+ 2.5	„ 8.5
10	23 143	8.5		22	8.0	+ 1 16	—37.7	„ 8.5
11	21 2276	8.7		24	8.1	— 0 15	+51.8	
12	21 2255	8.5		30	8.3	— 1 46	+62.0	
13	(23 6741)	(8.5)		30	8.3	— 3 37	—58.9	
14	22 2162	9.0		33	8.4	+ 0 29	—28.2	„ 8.7
15	(23 6755)	(8.5)		34	8.5	— 2 41	—56.0	
16	22 2135	8.6		34	8.5	— 3 39	+12.4	„ 8.6
17	22 2153	8.7	8.76	37	8.6	— 0 52	+ 7.7	„ 8.6
18	22 2179	8.7		38	8.7	+ 3 24	+ 1.5	„ 8.7
19	22 2148	9.0		39	8.7	— 1 24	—16.1	„ 8.6
20	23 144	9.0		42	8.8	+ 1 58	—30.5	„ 9.0
21	22 2177	9.1		42	8.8	+ 2 53	+ 4.3	„ 9.2
22	21 2263	8.7		43	8.9	— 1 5	+52.4	
23	22 2152	8.9	8.87	43	8.9	— 0 54	— 6.2	„ 8.6
24	22 2167	9.1		46	9.0	+ 1 36	—16.8	„ 9.1
25	21 2288	9.0		47	9.1	+ 1 0	+30.8	„ 8.8
26	22 2165	9.3		53	9.3	+ 1 33	+ 6.2	„ 9.1
27	21 2266	9.0		54	9.4	— 0 53	+32.5	„ 9.0
28	22 2155	9.3		55	9.5	— 0 38	+26.8	„ 9.1
29	21 2264	9.1		57	9.6	— 1 2	+53.7	
30	21 2277	9.2		58	9.6	— 0 11	+52.9	
31	22 2161	9.1	9.55	58	9.6	+ 0 27	+14.9	„ 8.9
32	22 2150	9.3	9.82	60	9.7	— 1 15	+ 2.9	„ 9.3
33	22 2158	9.5		60	9.7	— 0 13	—19.7	„ 9.3
34	21 2251	9.3		61	9.8	— 2 28	+31.0	„ 9.4
35	—22 2149	9.4	10.07	62	9.8	— 1 22	+ 2.3	„ 9.4

Num.	BD. (CD.)		HP.	Gradus	Magn.	$\Delta\alpha$	$\Delta\delta$	Notae
36	-22° 2168	9 <sup>M</sup> .4		62	9 <sup>M</sup> .8	+1 <sup>m</sup> 39 <sup>s</sup>	+19'.3	CD. 9 <sup>M</sup> .4
37	22 2164	9.5		65	10.0	+1 22	-26.0	" 9.4
38	22 2163	9.5		68	10.2	+0 30	-29.6	" 9.6
39	(22 5657)	(9.5)		71	10.3	-1 16	-11.1	
40	22 2156	9.7	9 <sup>M</sup> .99	71	10.3	-0 34	+ 4.4	" 9.4
41	22 2166	9.5		72	10.4	+1 34	+ 0.4	" 9.3
42	22 2159	9.7		75	10.6	-0 13	+13.5	" 9.6
43	22 2169	9.5		75	10.6	+1 49	-25.2	" 9.4
44	(22 5683)	(9.6)	10.61	78	10.7	-0 23	+ 2.2	
45	22 2151	10		80	10.8	-1 0	- 5.8	" 9.8
46	(22 5692)	(9.7)	11.22	82	11.0	-0 4	- 2.1	*
47	(22 5710)	(9.7)		82	11.0	+0 51	-12.9	
48	22 2170	10		84	11.1	+1 59	-15.8	" 9.7
49	22 2157	10		87	11.3	-0 29	+13.1	" 9.8
50	22 2154	10		89	11.4	-0 39	+20.0	" 9.7 **
51	(22 5656)	(9.6)		89	11.4	-1 17	+10.1	
52	22 2147	10		91	11.5	-1 37	+18.3	" 9.9
53	(22 5694)	(9.8)	11.54	91	11.5	+0 7	+ 8.7	
54	(22 5703)	(9.9)		96	11.8	+0 32	+ 0.7	
55	(22 5699)	(10)	11.98	98	11.9	+0 19	- 0.2	
56	(22 5686)	(10)		100	12.1	-0 17	-11.4	
57	(22 5687)	(10)		100	12.1	-0 16	- 8.5	
58	-(22 5700)	(10)	12.18	103	12.2	+0 23	+ 4.5	

\* Deest in C. Ph. D.

\*\* dpl., C. Ph. D. -- 22°  $\left\{ \begin{smallmatrix} 3130, & 9^M.4 \\ 3133, & 10.2 \end{smallmatrix} \right\}$ , 2<sup>s</sup>, 0'.4

3028

## RT Hydrae

 $8^h 22^m 32^s$  (1855.0) —  $50^\circ 50'.2$ 

Variatio ignota.

Num.	BD.		HP.	Gradus	Magn.	$\Delta\alpha$	$\Delta\delta$	Notae	
1	-5°	2530	7 <sup>M</sup> .0	6 <sup>M</sup> .48	0	6 <sup>M</sup> .6	-2 <sup>m</sup> 23 <sup>s</sup>	- 5'.8	dpl. AGC. 9 <sup>M</sup> .5 prec.
2	4	2379	7.0	6.51	4	6.8	+3 28	+66.1	
3	5	2566	7.7	6.98	7	7.0	+2 53	+25.4	
4	4	2380	8.0		13	7.3	+3 34	+59.9	
5	6	2599	7.5	7.80	14	7.3	-1 53	-54.4	
6	5	2544	7.7	7.44	15	7.4	-0 36	+26.4	
7	6	2617	7.4	7.50	17	7.5	+0 45	-43.2	
8	5	2529	7.8		17	7.5	-2 46	+ 6.5	
9	6	2606	8.3		24	7.8	-1 9	-61.8	
10	6	2620	7.8		26	7.9	+0 55	-50.3	
11	5	2574	8.3		26	7.9	+4 19	- 9.4	
12	6	2642	8.5		30	8.1	+4 46	-15.8	
13	5	2573	8.3		31	8.2	+4 14	+ 4.8	
14	6	2591	8.5		31	8.2	-3 18	- 9.7	
15	5	2545	8.8		32	8.2	-0 29	+40.9	
16	5	2538	9.0	8.52	35	8.3	-1 41	+23.5	
17	5	2535	9.0		39	8.5	-1 46	+16.8	
18	5	2547	8.7	8.63	40	8.6	-0 12	+18.1	
19	5	2541	8.8		43	8.8	-1 3	+35.6	
20	5	2563	9.1		47	8.9	+1 51	+14.2	
21	5	2564	9.1	8.92	47	8.9	+2 1	+ 0.2	
22	6	2603	9.0		49	9.1	-1 34	-19.2	
23	6	2604	9.0		49	9.1	-1 23	-25.4	
24	6	2618	9.1		51	9.2	+0 47	-24.1	
25	6	2625	9.0		55	9.4	+1 54	-12.2	
26	5	2557	9.2		57	9.5	+1 5	- 5.2	
27	5	2562	9.3		57	9.5	+1 40	+19.7	
28	5	2561	9.7		62	9.7	+1 37	+10.9	
29	5	2556	9.6		64	9.8	+1 0	+18.3	
30	5	2560	9.5		68	10.0	+1 34	+ 7.5	
31	6	2623	9.3		69	10.0	+1 40	-20.2	
32	5	2554	9.7	10.24	73	10.2	+0 33	+ 1.7	
33	6	2615	9.6		73	10.2	+0 22	-25.9	
34	5	2542	9.5	9.99	74	10.2	-1 0	+22.8	
35	-5	2551	9.6		75	10.3	+0 2	+26.9	



Num.	BD.		HP.	Gradus	Magn.	$\Delta\alpha$	$\Delta\delta$	Notae
36	-5° 2539	9. <sup>M</sup> 5		75	10. <sup>M</sup> 3	-1 <sup>m</sup> 34 <sup>s</sup>	+21'.4	dpl.
37	6 2607	9.5		76	10.3	-0 58	-21.1	
38	5 2540	9.6		78	10.4	-1 32	+ 4.3	
39	5 2559	9.8		80	10.5	+1 29	- 1.6	
40	5 2549	9.5	10. <sup>M</sup> 66	83	10.7	-0 3	- 6.9	
41	5 2558	9.6		84	10.8	+1 25	+21.5	
42	-5 2553	10		85	10.8	+0 33	+15.2	
43			10.91	88	10.9	+0 10	- 4.5	

3089

## RV Hydrae

 $8^h 32^m 43^s$  (1855.0) —  $90^\circ 4'.7$ 

Variatio ignota.

Num.	BD.		HP.	Gradus	Magn.	$\Delta\alpha$	$\Delta\delta$	Notae
1	$-9^\circ 2630$	$6^M.3$	$6^M.82$	0	$6^M.8$	$+3^m 10^s$	-12.8	AGC. dpl.
2	8 2452	6.5	6.48	0	6.8	+1 17	+32.2	
3	7 2587	7.0	6.95	4	6.9	+2 45	+65.6	
4	8 2436	7.0	7.18	6	7.0	-1 46	+42.1	
5	9 2595	7.0	7.52	11	7.3	-3 4	- 8.0	
6	9 2621	7.8	7.86	17	7.5	+1 9	-51.4	
7	8 2456	7.5	7.68	22	7.7	+2 4	+61.8	
8	8 2459	7.8		25	7.9	+2 29	+60.5	
9	8 2434	8.0		27	8.0	-1 46	+50.8	
10	9 2607	8.0		27	8.0	-0 50	-26.7	
11	10 2578	7.8	8.11	31	8.1	-3 9	-59.1	
12	8 2444	8.0	8.27	33	8.2	-0 4	+23.3	
13	8 2454	8.3		36	8.4	+1 25	+44.4	
14	9 2613	8.0		38	8.5	+0 1	-53.4	
15	9 2594	8.2		43	8.7	-3 5	-37.2	
16	9 2610	8.0	8.65	47	8.8	-0 20	+ 0.5	
17	9 2597	8.5		51	8.9	-2 49	+ 3.0	
18	9 2593	8.7		55	9.1	-3 6	-45.9	
19	8 2427	8.6		57	9.2	-2 38	+29.4	
20	9 2623	8.7	9.26	57	9.2	+1 49	-29.6	
21	9 2635	8.9		59	9.3	+3 43	- 7.2	
22	8 2464	8.8		60	9.3	+3 7	+ 9.9	
23	9 2619	8.9	9.37	62	9.4	+1 4	+ 1.2	
24	8 2439	8.9		63	9.5	-1 22	+21.5	
25	9 2631	8.9		66	9.6	+3 14	+ 2.1	
26	8 2455	9.5		71	9.7	+1 49	+25.2	
27	8 2450	9.1		73	9.8	+0 56	+17.3	
28	9 2618	9.1	9.77	77	9.9	+0 43	- 7.4	
29	8 2437	9.2		78	10.0	-1 31	+19.3	
30	8 2453	9.4		84	10.2	+1 22	+19.9	
31	9 2617	9.2	10.08	85	10.2	+0 40	-15.7	
32	9 2611	9.4		88	10.3	-0 5	-27.9	
33	9 2614	9.5		90	10.4	+0 1	-13.3	
34	9 2605	9.3		91	10.4	-1 12	-22.9	
35	-9 2599	8.9		93	10.5	-2 41	- 9.6	

Num.	BD.		HP.	Gradus	Magn.	$\Delta\alpha$	$\Delta\delta$	Notae
36	-9° 2604	9. <sup>M</sup> 6	10. <sup>M</sup> 57	97	10. <sup>M</sup> 6	-1 <sup>m</sup> 43 <sup>s</sup>	-28'.1	
37	8 2441	9.7		97	10.6	-0 51	+16.5	
38	8 2443	9.5		100	10.7	-0 14	+15.2	
39	9 2616	9.5	10.70	101	10.8	+0 17	- 0.3	
40	8 2451	9.7		101	10.8	+1 2	+17.6	
41	9 2603	9.4	10.56	101	10.8	-1 50	+ 2.3	
42	8 2442	9.5		103	10.8	-0 30	+ 6.6	
43	8 2435	9.5		106	10.9	-1 47	+ 5.1	
44	8 2432	10	11.33	111	11.1	-1 57	+ 5.4	
	-8 2448	10				+0 51	+18.0	trpl. *

\* Non in Charta.

3109

## S Cancri

 $8^h 35^m 39^s$  (1855.0)  $+19^\circ 33'.2$ Typus Algol, Periodus:  $9^d 11^h 37^m 45^s$ .

Num.	BD.		HP.	Gradus		Magn.	$\Delta\alpha$	$\Delta\delta$	Notae
1	+18° 2027	4.5 <sup>M</sup>	4.17 <sup>M</sup>			4.2 <sup>M</sup>	+0 <sup>m</sup> 47 <sup>s</sup>	-52'.2	PD. WG, 4.1 <sup>M</sup> , $\delta$ Cancri.
2	20 2158	7.0	*	0	0	6.3	-3 52	+58.0	„ WG, 6.5, 39 „
3	20 2171	7.2	6.32	4	0	6.4	-3 31	+30.3	„ GW-, 6.6, 41 „
4	20 2166	7.3	6.40	6	2	6.5	-3 36	+37.8	„ WG, 6.7
5	19 2095	7.2	6.83	10	3	6.6	+1 35	-12.8	„ GW, 6.9
6	19 2069	7.0	6.75	10	5	6.7	-3 37	+18.5	„ GW, 7.0
7	20 2159	7.3	*	10	7	6.7	-3 47	+55.8	„ GW, 6.8, 40 „
8	20 2175	7.7	6.75	13	8	6.8	-3 1	+32.5	
9	20 2172	7.1	6.72	14	8	6.9	-3 15	+40.8	„ GW, 7.1, 42 „
10	20 2185	7.5	7.05	14	9	6.9	-2 8	+50.2	„ WG-, 7.2
11	19 2084	8.0	7.89	36	20	7.7	-1 45	- 6.1	
12	19 2097	8.2	7.94	39	21	7.8	+1 51	+ 1.2	
13	19 2083	8.4	7.90	41	21	7.9	-1 51	+22.4	
14	19 2094	8.5	8.28	44	29	8.2	+1 25	- 9.3	
15	19 2082	9.3		64	37	9.0	-1 58	- 7.5	
16	19 2093	9.2	9.28	64	37	9.0	+1 22	- 8.4	
17	19 2092	9.1		65	38	9.1	+0 50	+23.3	
18	19 2088	9.0	(9.92)	72	41	9.3	-0 49	+ 2.0	var.?
19	19 2089	9.4	9.55	76	46	9.7	-0 8	-13.8	
20	19 2087	9.2		76	47	9.7	-0 51	+24.2	
21	20 2192	9.4		77	49	9.8	-1 16	+29.8	
22	19 2086	9.5	10.43	89	53	10.3	-1 11	-10.4	
23				93	55	10.5	-1 25	+21.8	
24			10.56	99	56	10.7	-1 13	+ 0.6	
25	19 2096	9.5		94	59	10.7	+1 43	+ 9.5	
26				98	59	10.8	+1 32	+ 3.3	
27				102	59	10.9	-0 51	- 5.0	
28	+19 2085	9.5	11.49	109	61	11.2	-1 15	+ 4.2	
29				105	63	11.2	+0 54	+ 4.8	
30				115	64	11.5	-1 18	+ 6.3	
31				112	68	11.6	+0 51	+ 1.4	

\* (2 + 7) = HP. 6<sup>M</sup>.48.

3179

## X Cancri\*

 $8^h 47^m 13^s$  (1855.0)  $+17^\circ 46'.8$ 

Variatio irregularis?

Num.	BD.		HP.	Gradus	Magn.	$\Delta\alpha$	$\Delta\delta$	Notae
1	+17° 1979	6 <sup>M</sup> .8	6 <sup>M</sup> .29	0	6 <sup>M</sup> .3	+1 <sup>m</sup> 46 <sup>s</sup>	- 5'.0	PD. WG, 6 <sup>M</sup> .4
2	18 2093	7.0	6.57	6	6.5	+3 47	+54.8	„ G, 6.4
3	18 2090	6.8	6.56	10	6.6	+2 54	+65.0	„ GW, 6.7
4	17 1966	7.7	6.82	17	6.9	-2 11	+ 8.1	
5	18 2075	7.5	7.12	20	7.1	-1 33	+18.7	„ GW, 7.4
6	18 2069	7.0	7.18	24	7.2	-2 50	+57.3	„ W, 7.5
7	18 2087	8.0	7.58	31	7.5	+1 23	+15.2	
8	18 2076	8.0		37	7.8	-1 29	+60.1	
9	16 1863	8.0		40	8.0	+2 13	-59.5	
10	16 1862	8.1		45	8.2	+1 58	-56.7	
11	18 2082	8.5	8.40	49	8.4	+0 27	+26.1	
12	17 1968	8.6	8.66	54	8.6	-1 10	- 3.3	
13	18 2077	9.0	8.85	60	8.9	-1 22	+26.9	
14	18 2078	9.0		64	9.0	-1 5	+32.1	
15	17 1967	9.2	9.31	69	9.3	-1 52	-14.7	
16	17 1976	9.3	9.48	75	9.6	+0 52	-25.2	
17	17 1975	9.4	9.78	79	9.8	+0 50	+ 4.9	
18	17 1978	9.5	9.89	83	10.0	+1 26	+10.2	
19	18 2074	9.5		85	10.1	-1 33	+14.3	
20	17 1977	9.4	10.45	90	10.4	+1 8	-16.4	
21	+17 1969	9.5	10.69	96	10.7	-1 0	-15.9	

\* PD. R, 6<sup>M</sup>.38; Krueger 807.

3186

## T Cancri

 $8^{\text{h}} 48^{\text{m}} 23^{\text{s}}$  (1855.0)  $+20^{\circ} 24'.1$ Min. =  $2\,399\,706^{\text{d}} + 284^{\text{d}} \text{ E.}$ 

Num.	BD.		HP.	Grads		Magn.	$\Delta\alpha$	$\Delta\delta$	Notae
1	+20° 2232	7. <sup>M</sup> 2	6. <sup>M</sup> 82	0	0	6. <sup>M</sup> 9	-2 <sup>m</sup> 45 <sup>s</sup>	+ 6'.8	PD. GW+, 6. <sup>M</sup> 9
2	19 2119	8.2	7.91	20	16	7.9	-3 19	-31.9	
3	20 2244	8.0	8.42	31	21	8.3	+0 16	+21.1	
4	20 2234	8.5	8.43	38	25	8.5	-2 25	-16.6	
5	21 1939	8.7		41	27	8.7	-2 20	+44.0	
6	21 1956	8.6		45	29	8.8	+3 47	+54.4	
7	20 2233	8.5	8.71	49	30	8.9	-2 40	+22.6	
8	19 2131	8.5		50	31	8.9	+1 17	-33.8	
9	21 1948	8.5		52	31	8.9	+1 8	+58.8	
10	20 2249	9.1	9.32	59	37	9.3	+2 0	+20.2	
11	20 2241	9.0		59	37	9.3	-1 1	+ 9.3	
12	21 1949	9.0		62	38	9.4	+1 51	+42.4	
13	21 1947	9.0		64	39	9.5	+1 7	+37.8	
14	20 2237	9.1		64	40	9.5	-1 31	+ 0.9	
15	20 2238	9.1		65	41	9.5	-1 17	-10.2	
16	20 2236	9.2		65	42	9.6	-1 55	+ 0.3	
17	20 2247	9.3	9.82	68	44	9.7	+1 2	-16.3	
18	20 2246	9.2	9.56	69	45	9.7	+0 38	+ 2.5	
19	20 2248	9.1		70	47	9.8	+1 10	-20.8	
20	20 2245	9.5	10.02	73	49	10.0	+0 26	-18.9	
21	19 2122	9.4		83		10.2	-1 22	-30.5	
22	20 2239	9.5		81	54	10.3	-1 15	- 1.2	
23	20 2240	9.5		83	55	10.3	-1 13	-18.1	
24	19 2121	9.5		85	56	10.4	-1 55	-24.4	
25	19 2123	9.5		89	56	10.4	-1 11	-28.6	
26	+20 2242	9.5	10.49	91	58	10.5	-1 0	-19.2	

3247

## V Ursae Maioris

 $8^h 58^m 0^s$  (1855.0)  $+51^\circ 41'.6$ Min. = 2 416 233<sup>d</sup> + 202<sup>d</sup> E (Irregularitates).

Num.	BD.		HP.	Gradus	Magn.	$\Delta\alpha$	$\Delta\delta$	Notae
1	+52°	1365	5. <sup>M</sup> 0	4. <sup>M</sup> 54	4. <sup>M</sup> 5	+0 <sup>m</sup> 37 <sup>s</sup>	+29'.5	PD. WG-, 4. <sup>M</sup> 7, f Ursae mai. „ W+, 6.9 „ GW, 7.0 „ WG, 7.4
2	51	1488	6.5	6.59	6.6	+3 46	-40.1	
3	51	1478	6.8	6.73	0	-2 55	-17.6	
4	52	1362	7.3	7.33	9	-1 4	+30.9	
5	50	1607	8.1		24	-2 34	-49.4	
6	51	1485	8.0	8.06	29	+0 43	-18.9	
7	50	1606	8.5		32	-2 42	-49.7	
8	51	1482	8.5	8.36	33	-1 36	-29.3	
9	52	1370	8.9	8.89	40	+1 49	+19.2	
10	51	1487	9.1		42	+2 54	+11.8	
11	51	1477	9.2		43	-3 11	-25.8	
12	52	1369	8.9	9.24	46	+1 42	+21.7	
13	51	1486	9.3		48	+2 23	- 2.4	
14	51	1484	9.2	9.50	51	+0 33	+11.4	
15	51	1480	9.4	9.38	54	-1 55	- 9.3	
16	51	1479	9.1	9.33	58	-2 44	- 5.6	
17	52	1361	9.5	9.63	61	-1 18	+21.6	
18	51	1481	9.4	9.69	64	-1 53	+ 2.9	
19	51	1483	9.5	10.04	66	-0 13	-12.0	
20					70	-1 21	+12.9	
21					78	+0 37	+ 2.0	
22					81	-0 37	+18.9	
23					86	-1 5	- 8.4	
24	+52	1373	9.5		87	+2 45	+30.3	
25					89	-0 19	-11.8	

3460

## W Ursae Maiors

 $9^{\text{h}} 33^{\text{m}} 32^{\text{s}}$  (1855.0)  $+ 56^{\circ} 36'.7$ Min. (hel.) = 1903 Jan.  $14^{\text{d}} 4^{\text{h}} 39^{\text{m}} + 4^{\text{h}} 0^{\text{m}} 13^{\text{s}} 21$  E.

Num.	BD.		HP.	Gradus	Magn.	$\Delta\alpha$	$\Delta\delta$	Notae
1	$+57^{\circ}$	1231	$5^{\text{M}}.0$	$5^{\text{M}}.36$	$5^{\text{M}}.4$	$+2^{\text{m}} 43^{\text{s}}$	$+70'.6$	PD. G, $5^{\text{M}}.2$
2	56	1397	6.5	6.67	6.7	-2 29	- 5.3	„ WG, 6.7
3	57	1224	6.8	6.88	0	-7 12	+60.4	„ GW, 7.3
4	57	1234	7.8		7	+5 42	+76.6	
5	56	1412	8.2		17	+10 2	-10.2	
6	55	1349	8.6		30	+5 17	-49.1	
7	56	1398	9.0	8.75	41	-1 18	+13.9	
8	56	1399	8.5	8.76	48	-1 2	-17.1	
9	57	1233	9.0		52	+4 19	+53.7	
10	56	1402	9.0	8.92	55	+2 20	-12.0	
11	56	1409	9.3		64	+5 37	-18.5	
12	56	1410	9.3		68	+6 6	-19.5	
13	56	1408	9.3		69	+5 24	-29.2	
14	56	1407	9.2		72	+4 58	- 8.1	
15	56	1406	9.5	9.72	83	+3 48	+ 5.2	
16	56	1405	9.3	9.82	87	+3 31	- 8.1	
17	56	1403	9.5	10.68	99	+3 12	-17.0	
18	+56	1404	9.5	10.70	107	+3 28	- 9.6	



3493

## R Leonis

 $9^{\text{h}} 39^{\text{m}} 45^{\text{s}}$  (1855.0) +  $12^{\circ} 5'.9$ Max. =  $2362907^{\text{d}}$  +  $312^{\text{d}}.8$  E (Inaequalitas periodica).

Num.	BD.		HP.	Gradus		Magn.	$\Delta\alpha$	$\Delta\delta$	Notae
1	+12° 2090	6 <sup>M</sup> .2	5 <sup>M</sup> .87	0	0	5 <sup>M</sup> .8	-1 <sup>m</sup> 11 <sup>s</sup>	+22'.6	PD. G, 5 <sup>M</sup> .9, 18 Leonis
2	12 2095	7.0	6.37	15	17	6.6	-0 7	+ 8.3	„ W, 6.7, 19 „
3	12 2105	6.8	6.66	20	21	6.8	+3 16	+25.1	„ W, 7.2, 21 „
4	11 2087	8.0		25	26	7.1	-3 57	-54.9	
5	11 2108	7.8	7.84	31	34	7.6	+2 19	-19.0	
6	11 2102	7.8	7.91	34	38	7.8	-0 3	-35.2	
7	12 2082	8.3		36	41	7.9	-3 52	+43.3	
8	11 2112	8.2		42	53	8.3	+3 25	-32.5	
9	12 2099	8.5	8.26	48	54	8.4	+1 26	+40.1	
10	12 2101	9.0	8.70	55	60	8.8	+2 2	+40.3	
11	11 2094	8.7	8.80	57	61	8.9	-2 32	-38.0	
12	13 2153	9.0		60	61	9.0	-1 2	+56.9	
13	12 2091	9.2		61	64	9.0	-0 47	+23.2	
14	12 2092	9.1	9.12	64	65	9.1	-0 33	+53.7	
15	11 2088	8.9		63	67	9.2	-3 29	-41.6	
16	12 2093	9.4	9.13	65	68	9.2	-0 18	- 0.3	
17	11 2107	9.0		69	71	9.4	+1 19	-52.2	
18	12 2097	9.5	9.64	73	73	9.5	+0 39	+20.4	
19	11 2097	9.3		77	75	9.6	-1 55	- 9.0	
20	11 2105	9.3	9.88	79	76	9.7	+0 48	- 7.3	
21	12 2094	9.5	9.58	81	78	9.8	-0 13	- 3.0	
22	12 2089	9.5		88	83	10.1	-1 36	+ 3.9	
23	12 2087	9.5		90	88	10.3	-2 0	+30.1	
24	11 2100	9.5		97	85	10.4	-0 34	-24.0	
25	12 2100	9.5		98	87	10.4	+1 59	- 5.3	
26	11 2101	9.5		103	86	10.5	-0 33	-29.8	
27	+11 2098	9.5		109	91	10.7	-1 4	- 7.0	

## Y Hydrae

9<sup>h</sup> 44<sup>m</sup> 22<sup>s</sup> (1855.0) — 22° 20'.4

Variatio irregularis?

Num.	BD. (CD.)		HP.	Gradus	Magn.	$\Delta\alpha$	$\Delta\delta$	Notae
1	-21° 2935	6 <sup>M</sup> .0	6 <sup>M</sup> .34	0	6 <sup>M</sup> .3	+3 <sup>m</sup> 27 <sup>s</sup>	+32'.1	
2	22 2705	6.8	6.78	17	6.8	-6 26	+15.4	CD. 7 <sup>M</sup> .1
3	21 2904	7.8		37	7.3	-4 45	+21.9	" 7.4
4	21 2912	7.2	7.24	40	7.4	-2 15	+60.0	
5	22 2759	7.8		52	7.7	+4 0	-28.4	" 7.4
6	23 206	7.8		54	7.8	+1 31	-42.3	" 8.3
7	22 2750	7.8		57	7.9	+2 11	-39.7	" 8.2
8	21 2941	8.3		60	8.0	+4 0	+41.3	
9	22 2725	8.1		65	8.1	-2 29	+20.0	" 8.3
10	22 2756	8.5	8.29	70	8.3	+3 22	-17.3	" 8.3
11	22 2753	8.5	8.47	79	8.6	+2 30	+ 4.6	" 8.4
12	22 2741	8.8	9.05	86	8.9	+0 11	+ 3.3	" 8.7
13	21 2938	8.8		87	8.9	+3 33	+50.1	
14	22 2751	8.8		88	9.0	+2 20	+15.0	" 8.8
15	21 2915	8.8		89	9.0	-2 0	+48.1	
16	21 2933	8.8		90	9.0	+2 45	+28.9	
17	22 2730	9.0	9.09	94	9.2	-1 43	-22.0	" 8.9
18	22 2720	8.8		96	9.2	-2 59	-30.6	" 8.6
19	22 2731	8.9		101	9.4	-1 24	-38.4	" 9.2
20	22 2728	9.0	9.81	104	9.6	-1 56	-22.0	" 9.1
21	22 2742	9.0		104	9.6	+0 23	-23.1	" 9.1
22	22 2746	9.1		111	9.8	+0 55	+20.3	" 9.2
23	22 2748	9.2		113	9.9	+1 42	-15.2	" 9.1
24	22 2743	9.4	10.34	118	10.1	+0 28	- 7.6	" 9.4
25	22 2736	9.4		119	10.1	-0 23	-21.6	" 9.5
26	22 2745	9.5		121	10.2	+0 44	-11.5	" 9.3
27	22 2740	9.2		124	10.3	+0 8	-18.2	" 9.2
28	22 2747	9.5		125	10.4	+1 4	-22.7	" 9.6
29	22 2738	9.7		127	10.4	-0 5	+19.8	" 9.5
30	21 2917	9.8		134	10.7	-1 38	+20.8	" 9.5
31	22 2732	9.7		137	10.9	-1 8	+16.9	" 9.8 dpl.
32	22 2729	9.6		137	10.9	-1 49	+ 0.7	" 9.7
33	22 2733	9.8		141	11.0	-1 7	+11.2	" 9.6
34	(22 7635)		10.87	143	11.1	-1 18	- 3.7	" 9.7
35	22 2735	9.9		145	11.2	-0 26	+15.6	" 9.8
36	(22 7646)			149	11.4	-0 34	+ 6.4	" 9.8
37	21 2923	9.8		152	11.6	+0 34	+24.5	" 9.8
38	-(22 7655)		11.68	157	11.8	+0 19	- 4.1	" 9.8

3649

## U Ursae Maioris

 $10^h 5^m 5^s$  (1855.0)  $+60^\circ 42'.1$ 

Variatio ignota.

Num.	BD.		HP.	Gradus	Magn.	$\Delta\alpha$	$\Delta\delta$	Notae
1	+60° 1250	6 <sup>M</sup> .7	6 <sup>M</sup> .75	0	6 <sup>M</sup> .9	+0 <sup>m</sup> 56 <sup>s</sup>	+10'.0	PD. GW, 6 <sup>M</sup> .9
2	61 1165	7.0	7.38	9	7.1	-8 5	+55.5	„ G, 7.2
3	61 1183	7.3	7.47	16	7.3	+6 44	+56.1	„ WG, 7.5
4	60 1245	7.7	7.86	25	7.6	-0 41	-35.1	
5	60 1248	8.2	8.11	34	7.9	+0 48	-37.5	
6	61 1172	7.5	8.07	34	7.9	-2 27	+66.0	„ GW, 8.2
7	60 1238	8.2		40	8.1	-7 51	-14.8	
8	61 1174	8.0	8.38	45	8.3	-1 19	+37.1	
9	61 1170	7.8	8.58	48	8.5	-2 33	+32.6	
10	59 1300	8.2		51	8.6	+6 4	-56.0	
11	60 1251	8.5	8.74	56	8.8	+1 37	-36.3	
12	61 1164	8.8		57	8.8	-8 30	+55.9	
13	60 1244	8.9	9.27	65	9.2	-0 52	- 6.4	
14	60 1247	9.3	9.62	70	9.4	+0 10	-26.0	
15	60 1242	9.5		79	9.9	-4 33	- 4.1	
16	60 1243	9.5		83	10.2	-2 30	+ 0.2	
17	61 1177	9.5	10.21	85	10.3	+0 58	+19.9	
18	61 1173	9.5	10.33	88	10.4	-1 25	+19.2	
19	60 1249	9.5	10.65	90	10.6	+0 49	- 3.3	
20	61 1171	9.4	10.71	94	10.8	-2 30	+21.4	
21	+60 1241	9.5		96	11.0	-5 12	- 5.6	

3881

## V Hydrae

 $10^{\text{h}} 44^{\text{m}} 34^{\text{s}}$  (1855.0)  $-20^{\circ} 28'.8$ 

Periodus longa et irregularis.

Num.	BD.		HP.	Gradus		Magn.	$\Delta\alpha$	$\Delta\delta$	Notae
1	-19° 3125	5. <sup>M</sup> 0	5. <sup>M</sup> 28			5. <sup>M</sup> 3	+1 <sup>m</sup> 50 <sup>s</sup>	+67'.3	b <sub>3</sub> Hydrae *
2	19 3134	6.5	6.55	0	0	6.6	+3 33	+55.3	
3	19 3122	7.0	7.08	9	8	7.1	+1 28	+37.9	
4	21 3195	7.2	7.54	16		7.5	+6 17	-45.7	
5	21 3192	7.7		23		7.9	+5 14	-46.9	
6	21 3168	7.8		27	26	8.2	+0 5	-49.3	
7	20 3280	8.2	8.30	29	26	8.2	-0 23	-16.5	
8	19 3104	8.0		29	27	8.3	-3 43	+54.5	
9	20 3272	7.8	8.33	32	31	8.5	-3 17	+ 4.8	
10	21 3152	8.0		37		8.7	-4 11	-36.0	
11	20 3269	8.5		45		9.2	-4 27	-16.2	
12	20 3277	8.9	9.25	53	44	9.7	-1 19	- 8.2	
13	20 3287	9.1	10.21	63	49	10.2	+1 26	- 4.7	
14	20 3278	9.8		68	58	10.8	-1 8	+21.4	
15	20 3286	9.5	10.61	70	54	10.6	+0 49	-12.1	
16	20 3282	9.6	11.03	73	60	11.0	-0 15	- 0.3	
17	20 3281	9.9	11.47	77	63	11.3	-0 21	+14.5	
18				82	63	11.4	+0 20	+13.6	
19				85	65	11.6	-0 42	+ 4.8	
20	20 3279	10		87	67	11.8	-0 39	+22.5	
21	-20 3285	10		92	67	11.9	+0 45	+14.5	
22				93	67	12.0	-0 56	+ 9.0	
23				94	68	12.0	+0 25	+12.7	

\* U. A. no. 257, 5.<sup>M</sup>2—5.<sup>M</sup>7\*\* (18 + 23) = BD. - 20° 3284, 9.<sup>M</sup>9

4318

## RX Virginis

11<sup>h</sup> 57<sup>m</sup> 20<sup>s</sup> (1855.0) — 4° 58'.0

Viriatio ignota.

Num.	BD.	HP.	Gradus	Magn.	$\Delta\alpha$	$\Delta\delta$	Notae
1	-5° 3416	6 <sup>M</sup> .7	6 <sup>M</sup> .84	0	6 <sup>M</sup> .7	+0 <sup>m</sup> 50 <sup>s</sup>	- 4'.4
2	4 3219	6.8	7.21	12	7.1	+5 3	+32.8
3	4 3192	7.2	7.20	16	7.3	-1 9	+17.7
4	5 3423	7.8	7.55	22	7.5	+2 28	-18.7
5	5 3419	8.0	7.64	24	7.6	+1 4	- 5.0
6	4 3216	8.5		36	8.2	+4 14	+37.4
7	4 3207	8.7		44	8.6	+2 13	+42.6
8	5 3406	7.8		45	8.6	-1 59	-41.5
9	4 3211	8.8		49	8.8	+3 9	+47.1
10	5 3403	8.2	(51)	8.9	-2 50	-30.3	var. ? *
11	4 3181	8.7		52	8.9	-4 7	+39.2
12	4 3203	8.5	9.02	55	9.1	+0 57	+ 5.1
13	4 3189	8.7	9.37	58	9.3	-1 46	+30.4
14	5 3420	8.8		58	9.3	+1 6	-46.0
15	5 3413	8.9	9.44	62	9.4	+0 6	-25.5
16	5 3422	8.7		63	9.5	+2 6	-55.6
17	5 3405	8.9	9.40	65	9.6	-2 26	- 3.6
18	4 3187	9.1		70	9.9	-2 23	- 0.8
19	4 3190	9.3	9.96	73	10.0	-1 35	+31.0
20	4 3194	9.6	10.42	76	10.3	-0 39	+16.2
21	5 3421	9.4	10.14	78	10.4	+1 54	- 6.0
22	4 3205	9.8		82	10.6	+1 34	+ 8.7
23	4 3201	9.5	10.84	85	10.8	+0 17	+16.3
24	4 3202	9.8		88	11.0	+0 42	+20.0
25	4 3196	9.8	11.10	90	11.1	-0 20	+ 1.2
26	4 3193	10		93	11.3	-1 1	+22.5
27	5 3415	10		95	11.5	+0 48	-12.1
28	4 3204	10		101	11.8	+1 27	+22.9
29	-4 3191	10	11.99	104	12.0	-1 30	+16.1
RW	Virginis	var.			+2 30	-59.5	Ch. 4333 Seriei IV <sup>ae</sup>

\* Lux decrescens, 7 grad., 1904, 1905.

4333

## RW Virginis

11<sup>h</sup> 59<sup>m</sup> 49<sup>s</sup> (1855.0) — 5° 57'.5

Variatio ignota.

Num.	BD.		HP.	Gradus	Magn.	$\Delta\alpha$	$\Delta\delta$	Notae
1	-6° 3499	6 <sup>M</sup> .3	6 <sup>M</sup> .33		6 <sup>M</sup> .3	-4 <sup>m</sup> 23 <sup>s</sup>	-55'.1	
2	6 3518	6.4	6.54		6.5	+3 12	-60.5	
3	5 3416	6.7	6.81	0	6.8	-1 40	+55.2	
4	5 3419	8.0	7.49	30	7.6	-1 26	+54.6	
5	5 3423	7.8	7.68	31	7.6	-0 1	+40.9	
6	5 3442	8.2		45	8.1	+3 53	+12.7	
7	6 3509	8.6		53	8.5	+1 20	- 5.3	
8	5 3420	8.8	8.77	60	8.8	-1 23	+13.5	
9	6 3517	8.7		63	9.0	+3 0	-17.2	
10	5 3429	9.0		66	9.2	+0 24	+53.1	
11	5 3413	8.9	9.23	66	9.2	-2 23	+34.0	
12	5 3422	8.7	9.12	69	9.3	-0 24	+ 3.9	
13	5 3430	9.3	9.86	74	9.6	+0 34	+17.2	
14	6 3508	9.0		77	9.8	+0 8	-45.5	
15	6 3501	8.9		80	10.0	-3 22	- 9.8	
16	5 3431	9.5	10.00	81	10.1	+0 45	+ 2.1	
17	5 3414	9.4		83	10.2	-1 50	+ 1.3	
18	5 3428	9.5		84	10.2	+0 8	+25.8	
19	5 3417	9.8		88	10.5	-1 30	+29.3	
20	5 3418	9.4		95	11.0	-1 29	+13.4	dpl.
21	5 3426	10	11.36	98	11.3	+0 4	+ 2.7	
22	-6 3510	9.9		102	11.6	+1 29	-10.3	
RX	Virginis	var.				-2 30	+59.5	Ch. 4318 Seriei IV <sup>ac</sup>

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## R Virginis

 $12^h 31^m 8^s$  (1855.0)  $+70^\circ 47.2'$ Max. =  $2381934.8 + 145.47$  E (Inaequalitas periodica).

Num.	BD.		HP.	Gradus		Magn.	$\Delta\alpha$	$\Delta\delta$	Notae
1	$+7^\circ 2568$	$6^M.0$	$5^M.49$	0	0	$5^M.5$	$+3^m 28^s$	$-11'.0$	PD. W, $5^M.8$ , (b), d'Virg.
2	8 2609	6.5	6.16	10	16	6.1	-7 9	+37.1	„ RG, 6.2, (r)
3	8 2619	7.1	6.85	32	31	7.0	-4 0	+45.0	„ WG, 6.8
4	8 2617	7.1	6.94	38	36	7.2	-4 57	+41.5	„ WG, 7.1
5	8 2616	7.5	7.56	43	44	7.6	-5 5	+57.7	„ WG, 7.6
6	8 2621	8.2	8.07	51	48	7.9	-3 24	+27.5	
7	8 2634	8.0	8.32	54	51	8.1	+3 46	+63.1	
8	8 2626	8.5	8.27	59	53	8.2	+2 5	+42.6	
9	6 2630	8.5		65	53	8.3	-3 58	-61.2	
10	8 2632	9.0		80	68	8.9	+3 18	+22.8	
11	8 2623	8.5	8.98	86	70	9.0	-1 41	+56.7	
12	8 2625	8.8	9.18	93	75	9.3	+0 53	+35.1	
13	7 2558	9.1	9.19	97	75	9.3	-1 11	-7.5	
14	8 2630	9.0		100	79	9.5	+3 7	+47.7	
15	7 2562	9.3	9.62	103	80	9.6	+1 11	+5.0	
16	8 2624	9.3		106	81	9.6	-0 50	+26.2	
17	7 2557	9.5		129	89	10.3	-1 21	-24.7	
18	7 2564	9.5	10.56	133	89	10.4	+1 22	+9.4	
19	$+7^\circ 2560$	9.5	10.42	133	91	10.5	-0 34	+10.9	
20				153	98	11.1	+0 12	-23.2	
21				154	101	11.2	-1 32	-13.0	
22				159	101	11.3	-0 40	-29.0	
23				162	102	11.4	-0 14	-18.9	
24				169	104	11.6	+0 48	+0.9	
25			11.86	173	108	11.8	-0 20	+7.0	
26				180	107	11.9	-0 20	-8.3	

4535

## Y Ursae Maioris

12<sup>h</sup> 33<sup>m</sup> 42<sup>s</sup> (1855.0) +56° 38'.6

Variatio ignota.

Num.	BD.		HP.	Gradus	Magn.	$\Delta\alpha$	$\Delta\delta$	Notae
1	+55°	1545	6 <sup>M</sup> .8	7 <sup>M</sup> .09	7 <sup>M</sup> .1	-2 <sup>m</sup> 28 <sup>s</sup>	-59'.5	PD. WG-, 7 <sup>M</sup> .1
2	57	1382	7.5	7.47	7.4	-4 14	+58.9	„ WG, 7.4
3	57	1388	7.5	7.48	7.4	+2 14	+69.1	„ WG, 7.4
4	57	1381	7.8		7.7	-4 36	+44.1	
5	56	1612	7.5	7.87	7.9	-1 8	+ 9.5	„ W+, 8.1
6	55	1540	8.0		8.0	-7 33	-62.9	
7	56	1618	8.2	8.22	8.2	+1 22	- 7.3	
8	57	1383	8.4		8.4	-3 27	+49.7	
9	56	1610	8.6	8.72	8.6	-2 50	+ 6.0	
10	56	1607	8.5		8.7	-5 43	-33.4	
11	57	1391	8.4		8.8	+6 0	+52.3	
12	56	1605	8.7		8.9	-7 7	-33.1	
13	55	1544	8.9		9.3	-3 48	-46.0	
14	57	1385	9.0		9.3	+0 2	+58.0	
15	55	1541	9.0		9.4	-7 0	-50.2	
16	56	1614	9.0	9.55	9.5	-0 31	- 4.1	
17	56	1611	9.2	9.87	9.7	-2 27	+11.8	
18	56	1621	9.4	9.86	9.7	+3 3	+17.0	
19	56	1620	9.4	10.14	10.0	+2 54	-26.7	
20	56	1622	9.0		10.1	+3 47	-20.1	
21	57	1389	9.5		10.3	+2 55	+22.8	
22	56	1613	9.5	10.45	10.4	-0 36	-28.2	
23	56	1623	9.5		10.4	+4 46	+ 1.2	
24					10.6	-0 19	+11.1	
25					10.7	+0 10	+ 5.4	
26	56	1619	9.5	10.97	10.8	+1 47	- 9.5	
27	56	1616	9.5	10.96	10.9	+0 16	-30.6	
28					11.2	+0 9	-21.4	
29	56	1609	9.5		11.2	-2 49	+ 0.7	
30	56	1608	9.5		11.5	-2 57	- 5.8	
31	+56	1617	9.5	11.65	11.7	+1 20	-20.8	



## S Ursae Majoris\*

 $12^h 37^m 35^s$  (1855.0) +  $61^\circ 53'.3$ Max. =  $2\,400\,571^d + 226^d.5$  E (Inaequalitas periodica).

Num.	BD.		HP.	Gradus		Magn.	$\Delta\alpha$	$\Delta\delta$	Notae
1	+61°	1320	6 <sup>M</sup> .0	5 <sup>M</sup> .87	0 0	5 <sup>M</sup> .9	+4 <sup>m</sup> 44 <sup>s</sup>	-46'.5	PD. GW+, 6 <sup>M</sup> .0
2	61	1312	6.5	6.65	20 11	6.6	-0 53	+ 3.7	" WG+, 6.5 **a
3	61	1309	7.0	7.02	31 31	7.0	-4 26	-12.4	" WG-, 7.2 **b
4	61	1307	7.2	7.30	37 37	7.3	-5 5	- 3.8	" WG, 7.4 **c
5	62	1257	7.5	7.32	38 39	7.3	+5 8	+16.7	" GW-, 7.6, (b)
6	60	1425	7.9		39 41	7.3	+9 22	-68.7	
7	61	1319	7.8	7.52	40 43	7.4	+4 35	-16.5	(r) **d
8	62	1254	8.3		58 65	8.0	+4 25	+45.2	
9	62	1252	8.6		64 66	8.2	+1 43	+47.4	
10	62	1246	8.7		65 71	8.5	-3 9	+57.0	
11	61	1310	8.5	8.50	70 81	8.5	-3 8	-16.7	**f
12	61	1315	9.2		74 89	8.7	+0 39	-36.4	
13	61	1311	9.2	8.83	78 92	8.9	-1 55	-12.6	**g
14	61	1324	9.0		78 98	9.0	+6 13	-40.0	
15	61	1304	9.1	9.22	86	9.2	-5 46	-26.3	BD. ed. 2. **h
16	61	1308	9.4		94	9.6	-4 41	-46.1	
17	61	1314	9.5	9.74	100 115	9.8	+0 38	-23.5	**k
18					102 112	9.8	+1 38	-24.7	
19	61	1316	9.4		102 115	9.9	+0 46	-28.4	
20	61	1317	9.5		106 117	10.0	+1 12	-23.5	
21	61	1318	9.5	10.09	107 116	10.0	+2 6	+ 1.8	**l
22	62	1250	9.4		110	10.2	-1 51	+34.5	
23	62	1248	9.5		117 121	10.4	-2 19	+11.6	
24				10.65	122 129	10.7	+1 1	- 5.5	**m
25					125 126	10.7	+0 12	+15.5	
26					126 127	10.7	+1 25	+17.4	
27					127 129	10.8	-0 39	+ 9.4	
28					131 130	10.9	+2 24	+ 3.8	
29				11.08	131 133	11.0	+1 3	+ 5.3	**n
30				11.58	143 140	11.5	+1 35	- 5.4	**o
31				11.94	148 145	11.8	+2 4	- 6.3	**p
32				12.54	168 153	12.5	+1 46	- 2.9	**q
Neb.	+62	1245					-4 4	+31.2	NGC. 4605
T	Ursae maior.	var.					-7 44	-96.2	Ch. 4511 Seriei III <sup>ac</sup>

\* Vide etiam Seriem III.

\*\* HCO. vol. XXXVII p. 7 et p. 190.

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## RT Virginis

 $12^h 55^m 17^s$  (1855.0) +  $5^\circ 58'.0$ Max. =  $2\,414\,752^d + 379^d E??$ 

Num.	BD.		HP.	Gradus	Magn.	$\Delta\alpha$	$\Delta\delta$	Notae
1	+6° 2697	6 <sup>M</sup> .8	6 <sup>M</sup> .91		6 <sup>M</sup> .9	+6 <sup>m</sup> 13 <sup>s</sup>	+ 2'.3	PD. GW, 7 <sup>M</sup> .1
2	5 2702	7.3	7.18		7.2	-1 30	-49.6	„ GW, 7.4
3	5 2699	8.2		0	8.4	-3 42	- 4.8	
4	5 2709	8.8	8.59	8	8.6	+0 49	-16.7	
5	5 2710	8.6	8.75	13	8.7	+1 28	+ 0.1	
6	6 2688	8.9		20	8.9	-2 23	+29.4	
7	6 2687	8.8		21	8.9	-2 29	+48.4	
8	5 2700	9.0		27	9.1	-3 11	-14.3	
9	5 2707	9.0		30	9.2	-0 17	-34.5	
10	6 2690	9.0		34	9.4	+0 15	+46.1	
11	6 2692	9.5		37	9.5	+0 49	+52.0	
12	6 2689	9.3		38	9.6	-2 5	+11.7	
13	5 2706	9.5		47	10.0	-0 36	-19.0	
14	5 2703	9.5		50	10.1	-1 23	- 6.2	
15	6 2693	9.5	10.48	54	10.4	+1 1	+ 3.2	
16	6 2691	9.5		56	10.5	+0 45	+18.4	
17	5 2704	9.5		56	10.5	-1 13	- 7.2	
18	5 2701	9.5		56	10.5	-1 40	-21.2	
19	+5 2711	9.5		62	10.8	+2 7	-27.0	
20			11.30	72	11.3	+0 27	+ 4.8	
	Virginis	var.				-0 11	- 0.2	$10\frac{1}{2}^M - 11\frac{1}{2}^M *$

\* Harvard 1170; vide HCO. Circular 98.

## W Virginis

13<sup>h</sup> 18<sup>m</sup> 33<sup>s</sup> · (1855.0) — 2° 37'.4Max. = 2 402 708<sup>d</sup>27 + 17<sup>d</sup>2711 E.

Num.	BD.		HP.	Gradus		Magn.	$\Delta\alpha$	$\Delta\delta$	Notae
1	-3° 3462	7 <sup>M</sup> .0	7 <sup>M</sup> .07	0	0	7 <sup>M</sup> .3	-1 <sup>m</sup> 37 <sup>s</sup>	-55'.2	
2	2 3684	8.0	7.58	9	3	7.5	+0 6	-16.7	
3	3 3459	8.0		25	22	8.1	-1 57	-69.0	
4	3 3476	8.0	8.64	36	39	8.6	+2 39	-65.2	
5	3 3458	8.6	8.77	42	40	8.7	-2 35	-36.7	
6	3 3482	9.1	9.42	62	56	9.4	+3 59	-51.9	
7	2 3689	9.0	9.46	62	62	9.5	+3 15	+24.9	
8	3 3460	8.9	9.51	66	64	9.6	-1 56	-49.6	
9	3 3455	9.3		74	68	9.8	-3 33	-24.0	
10	1 2807	9.4		74	70	9.9	-3 34	+53.7	
11	3 3454	9.2		78	73	10.0	-3 42	-52.0	
12	3 3464	9.3		81	77	10.1	-1 6	-47.8	
13	1 2806	9.5		83	78	10.2	-3 39	+46.1	
14	3 3471	9.6		84	78	10.2	+1 7	-47.6	
15	2 3688	9.5		84	78	10.2	+2 10	-17.6	dpl.
16	1 2824	9.5		83	79	10.2	+1 41	+58.0	
17	1 2808	9.5		86	79	10.2	-3 24	+47.5	
18	2 3678	9.4		88	79	10.3	-2 27	-20.2	
19	2 3690	9.5		88	81	10.3	+3 30	+18.6	
20	2 3677	9.3	10.34	91	81	10.3	-3 6	+27.1	
21	3 3457	9.5		91	82	10.3	-2 41	-33.4	
22	2 3679	9.6		87	83	10.3	-2 26	- 9.9	
23	3 3463	9.5		94	87	10.5	-1 15	-38.7	
24	2 3687	9.7		97	87	10.5	+1 54	- 4.0	
25	2 3676	9.5		98	90	10.6	-3 8	-15.2	
26	3 3474	9.9		98	90	10.6	+1 43	-29.8	
27				102	93	10.7	+0 33	-22.1	dpl.
28				102	97	10.8	-0 59	- 9.7	
29	2 3680	9.8		103	102	10.9	-2 2	+10.6	
30	-2 3681	10	10.88	103	103	10.9	-1 32	+30.5	
31				106	108	11.1	-1 45	+27.2	
32				108	111	11.1	-1 13	+28.7	
33				115	113	11.3	-1 26	- 3.6	
34				117	114	11.3	-1 54	- 1.0	
35				127	125	11.7	+1 40	+26.1	*
V	Virginis	var.					+1 46	+12.3	Ch. 4816 Seriei I <sup>ae</sup>

\* Num. 10 in Ch. 4816 Seriei I<sup>ae</sup>

## R Hydrae

 $13^h 21^m 48^s$  (1855.0)  $- 22^\circ 31'.8$ 
 $\text{Max.} = 2411931^d 0 + 425^d 15 \text{ E (Inaequalitas periodica).}$ 

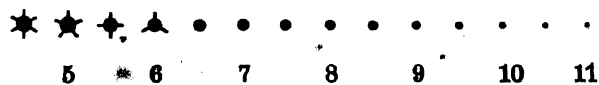
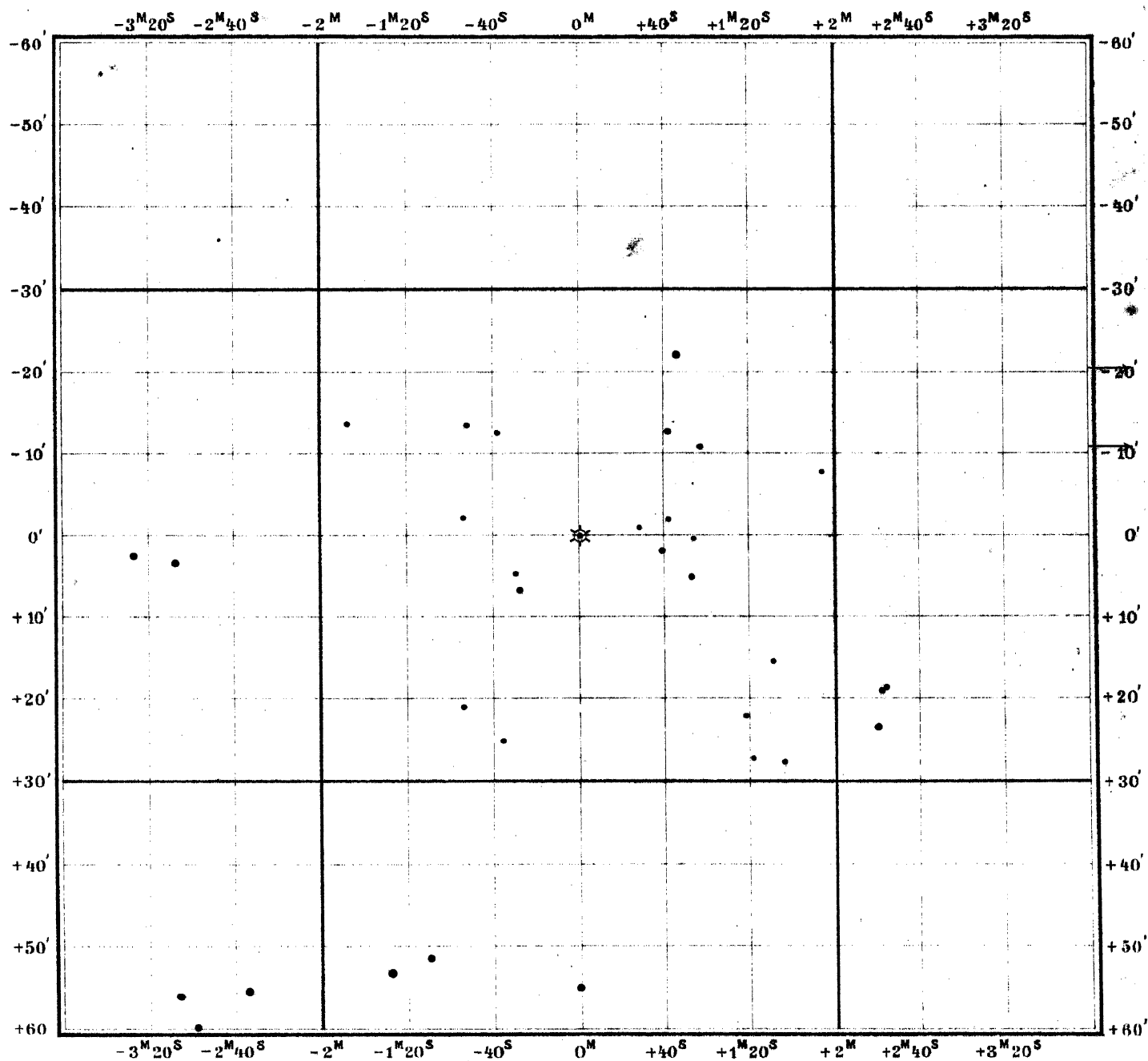
Num.	BD. (CD.)		HP.	Gradus		Magn.	$\Delta\alpha$	$\Delta\delta$	Notae
1	22° 3645	6 <sup>M</sup> .7	6 <sup>M</sup> .42	0	0	6 <sup>M</sup> .5	+11 <sup>m</sup> 45 <sup>s</sup>	-10'.8	
2	21 3738	6.5	7.13	10	11	7.1	+ 5 50	+75.2	
3	22 3630	7.0	7.14	10	17	7.2	+ 7 26	-20.4	
4	21 3736	7.5	7.64	18	21	7.6	+ 5 41	+39.3	(rg)
5	21 3718	7.7		21	25	7.7	- 1 28	+53.0	(gr)
6	22 3604	7.7	8.15	27	36	8.1	+ 0 46	-22.1	
7	21 3714	8.2		31	45	8.4	- 2 34	+55.2	
8	21 3712	8.2		34	50	8.4	- 2 58	+59.6	
9	21 3721	8.7		37	52	8.5	- 1 10	+51.2	
10	21 3723	8.5		40	59	8.7	- 0 1	+54.9	
11	22 3589	8.1	8.74	45	59	8.8	- 3 27	+ 2.4	
12	22 3615	8.7		48	68	8.9	+ 2 20	+23.4	
13	22 3592	8.7	9.11	51	67	9.0	- 3 7	+ 3.3	
14	22 3600	9.0		56	76	9.2	- 0 28	+ 6.7	(rg)
15	22 3617	9.1		60	82	9.4	+ 2 24	+18.6	
16	22 3616	9.0		62	85	9.4	+ 2 22	+19.0	
17	22 3603	9.0	9.34	64	86	9.5	+ 0 42	-12.9	
18	22 3605	8.3	9.76	65	93	9.6	+ 0 53	+ 5.0	
19	22 3602	9.0	9.71	68	94	9.7	+ 0 39	+ 1.9	
20	22 3607	9.1	10.00	73	102	10.0	+ 0 57	-10.9	
21	22 3611	9.4		75	107	10.1	+ 1 36	+27.6	
22	22 3595	9.4	10.43	83	112	10.4	- 1 47	-13.9	
23	22 3598	9.5		87	114	10.6	- 0 52	-13.6	
24	22 3610	9.7	10.83	91	121	10.8	+ 1 31	+15.4	
25	22 3596	9.6		92	122	10.9	- 0 54	- 2.2	
26	22 3612	9.5		95	122	10.9	+ 1 54	- 7.7	
27	22 3609	9.7		95	122	10.9	+ 1 21	+27.2	
28	22 3599	9.5		98	124	11.1	- 0 30	+ 4.6	
29	22 3597	9.8		98	130	11.2	- 0 54	+20.9	
30	22 3606	9.5		100	130	11.2	+ 0 54	+ 0.3	
31	(22 9953)	(9.7)		103	129	11.3	- 0 38	-13.0	
32	22 3608	9.7		103	131	11.4	+ 1 18	+22.0	
33	(22 9954)	(10)		108	134	11.6	- 0 36	+25.2	
34	(22 9964)	(9.9)		116	138	11.9	+ 0 28	- 1.3	
35	-(22 9966)	(10)		120	139	12.0	+ 0 42	- 2.3	

Vide etiam Chartam VIII Series V<sup>ae</sup>

# R Hydrae

**Color:** 5.9, III;

**Magnitudo:**  $4\frac{1}{2}$ — $9\frac{1}{2}$ .



Series IV.

5194

## V Bootis

 $14^{\text{h}} 23^{\text{m}} 54^{\text{s}}$  (1855.0).  $+39^{\circ} 30'.4$ Max. =  $2\,409\,419^{\text{d}} + 256^{\text{d}} \text{ E.}$ 

Num.	BD.		HP.	Gradus		Magn.	$\Delta\alpha$	$\Delta\delta$	Notae
1	+38°	2565	2. <sup>M</sup> 8	3. <sup>M</sup> 00		3. <sup>M</sup> 0	+2 <sup>m</sup> 20 <sup>s</sup>	-33'.7	PD. GW, 3. <sup>M</sup> 4, $\gamma$ Bootis ,, WG+, 6.4 (gr)
2	39	2764	6.3	6.32	0	6.3	-4 19	-27.7	
3	40	2785	7.3	7.67	0 30	7.6	-0 48	+45.5	
4	38	2570	7.5	7.93	7 46	8.0	+4 46	-51.4	,, W, 8.3 (r)
5	39	2778	8.0		19 52	8.3	+4 15	+ 4.3	
6	40	2793	7.8	8.55	26	8.8	+1 34	+62.9	
7	40	2792	8.2	8.74	29 68	8.8	+1 30	+49.9	
8	40	2790	8.8		26 76	8.9	-0 7	+55.7	
9	39	2774	8.8	9.05	28 76	9.0	+0 39	-21.0	
10	38	2560	8.8		31 77	9.1	-0 39	-34.5	
11	39	2770	8.5	8.98	33 79	9.1	-0 57	+ 8.2	
12	39	2777	8.8		35 81	9.2	+4 9	-11.3	
13	38	2564	8.5	9.28	37 82	9.3	+1 24	-39.0	
14	39	2776	9.0		38 87	9.4	+3 16	-28.4	
15	39	2765	8.8		41	9.4	-2 55	+16.3	
16	39	2771	8.9	9.73	47 92	9.7	-0 34	-19.5	
17	39	2768	8.8		51 97	9.9	-1 43	-10.3	
18	39	2769	9.2		56 101	10.1	-1 36	+26.7	
19					59 106	10.3	+1 1	-19.8	
20	39	2772	9.4	10.44	64 110	10.5	-0 10	+20.9	
21	39	2767	9.5	10.90	71 117	10.9	-2 5	+ 0.7	
22					75 118	11.0	-1 34	-14.7	
23	39	2775	9.5	11.33	77 118	11.1	+1 1	+ 3.7	
24					80 116	11.1	-1 52	-21.2	
25					81 121	11.3	+0 48	- 8.0	
26	+39	2766	9.5		88 123	11.5	-2 30	-20.1	
27					92 128	11.8	-0 55	+18.3	

5221

## RV Librae

14<sup>h</sup> 27<sup>m</sup> 45<sup>s</sup> (1855.0) — 17° 23'.9

Variatio ignota.

Num.	BD.		HP.	Gradus	Magn.	$\Delta\alpha$	$\Delta\delta$	Notae
1	-16° 3892	7 <sup>M</sup> .2	7 <sup>M</sup> .17		7 <sup>M</sup> .2	-1 <sup>m</sup> 43 <sup>s</sup>	+73'.2	
2	17 4110	8.0		0	8.0	-3 26	+ 9.6	
3	17 4138	7.8		0	8.0	+3 35	+ 8.6	
4	16 3914	8.6		5	8.2	+4 11	+34.8	
5	18 3846	8.5		5	8.2	-3 17	-46.9	
6	18 3843	8.6		16	8.7	-4 4	-39.7	
7	17 4133	8.5		17	8.8	+2 41	+ 9.4	
8	16 3894	8.8	9.34	20	8.9	-1 36	+28.5	
9	17 4144	8.5		22	9.0	+4 44	+14.6	
10	17 4126	8.8	9.34	24	9.1	+1 20	-17.8	
11	18 3860	8.8		24	9.1	+0 5	-56.1	
12	17 4136	8.9		27	9.3	+3 26	+17.9	
13	17 4119	9.0	9.46	30	9.4	-0 5	+19.6	
14	17 4127	9.2	9.56	36	9.6	+1 24	-22.6	
15	17 4128	9.1	9.71	37	9.7	+1 58	+13.2	
16	17 4120	9.3	10.12	44	10.0	-0 3	- 5.9	
17	17 4115	9.3	10.44	49	10.3	-1 58	+11.7	
18	17 4121	9.7	10.45	53	10.5	-0 1	-27.9	
19	17 4124	9.8		57	10.7	+0 46	-17.8	
20	17 4125	9.8		59	10.7	+0 51	-22.7	
21	16 3900	9.5		59	10.7	+0 34	+27.0	
22	17 4123	9.5	10.82	61	10.8	+0 33	+ 3.9	
23	17 4118	9.9	11.01	65	11.0	-0 23	- 9.6	
24	17 4117	9.5		70	11.3	-1 1	+15.0	
25	-17 4116	9.5		71	11.3	-1 56	-22.7	
V	Librae	var.				+4 34	+22.3	Ch. 5249 Seriei I <sup>ae</sup>

5484

## U Coronae

 $15^{\text{h}} 12^{\text{m}} 17^{\text{s}} \quad (1855.0) \quad + 32^{\circ} 10'.8$ 

 Typus Algol, Periodus:  $3^{\text{d}} 10^{\text{h}} 51^{\text{m}} 11^{\text{s}}.7$  (Inaequalitas periodica).

Num.	BD.		HP.	Gradus		Magn.	$\Delta\alpha$	$\Delta\delta$	Notae
1	+30°	2653	5. <sup>M</sup> .2	5. <sup>M</sup> .05		5. <sup>M</sup> .1	+4 <sup>m</sup> 57 <sup>s</sup>	-81'.7	PD. W+, 5. <sup>M</sup> .2, $\eta$ Coronae
2	32	2561	6.5	6.22	0 0	6.0	-4 6	+ 8.9	„ G, 6.1, (rg)
3	33	2574	6.8	6.14	7 19	6.3	+1 21	+51.9	„ W, 6.6, (w)
4	31	2724	7.3	6.86	20 29	6.9	+2 41	-10.6	„ GW, 7.2, (w)
5	31	2719	7.0	6.87	23 33	7.0	-0 14	-48.7	„ GW, 7.1, (g)
6	32	2578	7.8		40 59	7.9	+5 12	+ 9.3	
7	32	2575	8.1	8.29	46 66	8.2	+4 18	+20.9	
8	32	2577	8.1	8.67	53 77	8.5	+4 43	- 5.9	
9	31	2713	8.9	8.58	53 78	8.5	-2 1	-43.0	
10	32	2573	8.9	8.66	56 81	8.6	+2 9	+23.5	
11	32	2564	8.7	8.72	56 82	8.7	-3 52	+36.3	
12	31	2721	8.8	8.91	62 90	8.9	+0 50	-57.2	
13	32	2572	9.0	8.93	69 94	9.1	+1 31	+11.2	
14	32	2562	9.0		69 96	9.1	-4 2	+ 7.0	
15	31	2727	8.9		74 98	9.3	+3 31	-44.8	
16	31	2722	9.2		78 102	9.4	+1 59	-57.2	dpl. AGC. 4''
17	31	2723	8.9		81 108	9.6	+2 35	-42.7	
18	32	2570	9.3	9.59	85 109	9.7	+0 8	+16.5	
19	32	2566	9.2		89 114	9.9	-1 36	+13.8	
20	31	2717	9.4		93 125	10.1	-0 27	-22.5	
21					96 134	10.3	+2 21	+21.6	
22	32	2568	9.4	10.53	102 133	10.5	-0 53	- 3.8	
23	+32	2567	9.4		103 138	10.6	-0 55	+ 3.2	
S	Coronae		var.				+3 13	-17.1	Ch. 5504, Seriei III <sup>ae</sup>



5601

## S Ursae Minoris

 $15^h 35^m 18^s$  (1855.0)  $+79^\circ 7'.0$ Max. =  $2411623^d + 325^d$  E.

Num.	BD.		HP.	Gradus	Magn.	$\Delta\alpha$	$\Delta\delta$	Notae
1	$+78^\circ 527$	$4^M.7$	$4^M.34$		$4^M.3$	$+14^m 10^s$	$-52'.0$	PD. GW-, $4^M.6$ ; $\zeta$ Urs. Min.
2	77 592	5.0	5.33		5.3	+ 0 55	-77.1	„ G, 5.1; $\theta$ „ „
3	78 510	7.2	7.82	0	7.7	-11 55	-12.9	„ WG, 7.4
4	78 532	8.3		10	8.0	+22 10	-58.2	
5	78 506	8.4		19	8.2	-24 35	-10.8	
6	79 470	8.0	8.43	25	8.4	+ 4 25	+33.5	
7	78 518	8.3	8.36	25	8.4	- 0 25	-18.0	
8	78 507	8.3	8.32	25	8.4	-17 55	-12.5	
9	78 526	8.4		31	8.6	+14 0	-39.9	
10	78 513	9.0		35	8.8	-10 10	-42.0	
11	78 515	9.2		39	8.9	- 9 35	-51.6	
12	78 519	9.0	8.92	39	8.9	+ 1 20	-18.9	
13	78 521	8.7		39	8.9	+ 3 30	-40.9	
14	78 530	8.6		42	9.0	+18 5	-54.0	
15	78 531	9.0		43	9.0	+21 10	-49.0	
16	79 466	9.0		47	9.2	- 7 0	+42.6	
17				48	9.2	+ 9 25	-32.4	
18	78 512	9.0		50	9.3	-10 55	-18.9	
19	78 516	9.1	9.24	54	9.5	- 3 10	-27.2	
20	78 520	9.1	9.58	56	9.6	+ 3 35	-26.4	
21				64	9.9	+12 30	-16.2	
22	79 471	9.5		65	10.0	+ 8 25	+22.7	
23	79 465	9.3		67	10.1	-11 10	+17.5	
24				70	10.2	+ 8 45	+20.8	
25	79 467	9.4	10.71	76	10.6	0 0	- 1.1	
26				81	10.8	- 2 25	-11.3	
27				82	10.8	+ 3 45	-26.7	
28	78 523	9.5	10.68	82	10.8	+ 6 20	-11.7	
29	79 469	9.5	10.81	85	11.0	+ 0 15	+ 2.1	
30	$+79 468$	9.4		88	11.2	+ 0 5	+ 6.7	
31				98	11.6	0 0	+ 7.1	
32				107	12.2	+ 1 30	+ 3.2	dpl.
33				113	12.5	+ 2 45	+ 2.6	

5687

## ST Herculis

 $15^{\text{h}} 46^{\text{m}} 26^{\text{s}}$  (1855.0)  $+ 48^{\circ} 55'.3$ 

Variatio irregularis.

Num.	BD.		HP.	Gradus	Magn.	$\Delta\alpha$	$\Delta\delta$	Notae
1	+48° 2317	7 <sup>M</sup> .5	7 <sup>M</sup> .70	0	7 <sup>M</sup> .7	-10 <sup>m</sup> 31 <sup>s</sup>	-24'.6	PD. GW—, 8 <sup>M</sup> .1 AGC. orange
2	48 2322	8.0		12	8.1	- 7 28	-42.0	
3	47 2272	8.0		17	8.3	- 1 2	-60.5	
4	48 2330	8.0	8.38	20	8.4	- 3 7	-35.1	
5	49 2428	8.5	8.51	26	8.6	- 1 49	+12.5	
6	49 2430	8.4	8.86	32	8.8	- 0 14	+45.9	
7	48 2324	8.7		39	9.0	- 5 49	-28.0	
8	47 2271	8.5		46	9.2	- 2 15	-57.6	
9	48 2329	8.9		51	9.4	- 3 5	-52.2	
10	49 2419	8.5		54	9.5	- 6 7	+33.1	
11	48 2326	8.9		59	9.6	- 5 3	-34.8	
12	48 2342	8.9		64	9.8	+ 3 39	-20.9	
13	49 2425	9.0		66	9.8	- 3 33	+52.1	
14	48 2335	9.1	9.89	70	9.9	+ 0 15	-14.1	
15	48 2332	9.2	10.06	74	10.1	- 1 49	0.0	
16	49 2427	9.5		75	10.1	- 1 55	+28.5	
17	48 2338	9.5		75	10.1	+ 1 52	-30.6	
18	49 2426	9.5		79	10.2	- 2 39	+18.1	
19	48 2340	9.5	10.26	80	10.3	+ 2 15	+ 1.4	
20	48 2336	9.5	10.30	81	10.3	+ 0 43	-24.5	
21	48 2339	9.5		85	10.4	+ 1 57	-18.7	
22	48 2341	9.4	10.08	88	10.5	+ 2 25	-25.6	
23	49 2429	9.5	10.60	94	10.6	- 0 52	+ 8.2	
24	+48 2337	9.5	10.82	99	10.8	+ 0 44	-17.2	

5768

## RR Herculis

 $16^h 0^m 14^s$  (1855.0)  $+50^\circ 53'.8$ Max. =  $2413149^d + 238^d E?$ 

Num.	BD.		HP.	Gradus		Magn.	$\Delta\alpha$	$\Delta\delta$	Notae
1	+50° 2239	6 <sup>M</sup> .0	5 <sup>M</sup> .90	0		5 <sup>M</sup> .9	-5 <sup>m</sup> 14 <sup>s</sup>	-36'.3	PD. WG-, 6 <sup>M</sup> .3 ,, WG, 7.1 (rg)
2	50 2257	7.2	6.96	26		6.8	+4 56	-19.8	
3	51 2046	7.8		0 47		7.3	-5 6	+ 9.0	
4	50 2244	8.3		2 51		7.5	-4 16	-35.5	
5	51 2061	8.0		6 55		7.7	+4 57	+13.3	
6	51 2050	8.0	8.01	11 62		7.9	-3 38	+19.6	
7	51 2051	8.3	8.18	12 68		8.1	-2 21	+51.2	
8	50 2243	9.0		13 69		8.1	-4 17	-39.2	
9	51 2048	8.1	8.06	14 71		8.2	-4 15	+18.9	
10	51 2060	8.5	8.59	20 79		8.5	+4 40	+20.8	
11	50 2240	9.1		24 80		8.6	-5 10	-42.4	
12	50 2246	9.2		26 81		8.7	-2 46	-30.9	
13	51 2043	8.8		27 81		8.8	-5 50	+12.7	
14	51 2059	8.5		30 85		8.9	+4 23	+38.5	
15	50 2258	8.5		30 87		9.0	+5 2	-43.9	
16	52 1944	8.5		31		9.0	+4 30	+67.7	
17	50 2250	8.8	8.94	32 85		9.0	-0 25	+ 0.9	
18	51 2049	9.0		38 91		9.3	-4 15	+40.7	
19	50 2248	9.2	9.58	39 91		9.3	-1 9	-34.4	
20	51 2057	9.1		39 91		9.3	+0 30	+52.2	
21	51 2058	8.8		39 91		9.3	+3 55	+12.7	
22	50 2255	9.3	10.22	45 99		9.7	+1 49	-19.6	
23	50 2245	9.2		49 103		9.9	-2 58	-11.8	
24	49 2448	9.0		51 104		10.0	-3 33	-58.5	
25	51 2053	9.4		54 104		10.0	-0 50	+11.6	
26	50 2238	9.0		54 106		10.0	-5 33	-13.5	
27	50 2252	9.5	9.91	54 107		10.1	+0 31	- 6.7	
28	50 2247	9.3		57 108		10.2	-2 19	-13.6	
29	51 2054	9.5		61 108		10.3	-0 51	+28.7	
30	+50 2254	9.4	10.57	64 118		10.7	+1 48	-23.1	
31				68 123		10.9	+1 24	-14.9	
32				78 129		11.3	+0 31	-24.1	*
33				78 130		11.3	+0 19	- 2.1	
34				82 134		11.6	+0 59	-23.5	*
35				94 141		12.5	+0 10	- 3.9	

\* BD + 50° 2253, 9<sup>M</sup>.5 = (32 + 34).

## V Ophiuchi

 $16^{\text{h}} 18^{\text{m}} 40^{\text{s}}$  (1855.0) —  $12^{\circ} 5'.5$ 
 $\text{Max.} = 2\,405\,660^{\text{d}} + 302.5 \text{ E (Inaequalitas periodica).}$ 

Num.	BD.		HP.	Gradus		Magn.	$\Delta\alpha$	$\Delta\delta$	Notae
1	-13°	4437	6 <sup>M</sup> .8	6 <sup>M</sup> .85	0 0	6 <sup>M</sup> .9	+1 <sup>m</sup> 42 <sup>s</sup>	-58'.6	(rg)
2	13	4440	7.2	7.18	4 5	7.1	+2 39	-69.0	
3	11	4129	7.3	7.47	13 23	7.7	-2 30	+32.1	
4	11	4154	8.3	8.75	23 45	8.3	+3 11	+23.3	
5	11	4135	8.2	8.46	27 53	8.5	-0 22	+56.5	
6	12	4494	8.5		33 55	8.7	-3 58	-45.9	
7	12	4515	8.6	8.51	30 59	8.7	+1 18	-40.4	
8	11	4140	8.5		35 62	8.9	+0 24	+19.8	
9	12	4501	8.8	8.88	37 68	9.1	-1 26	-45.0	
10	11	4132	8.6		37 68	9.1	-1 39	+32.7	
11	11	4151	8.6		44 72	9.3	+2 27	+23.5	(rg)
12	11	4149	9.0		49	9.4	+2 7	+ 9.2	
13	11	4134	9.0		53 78	9.6	-0 44	+13.7	
14	11	4138	9.1		57 82	9.7	+0 18	+ 8.9	
15	11	4143	9.3		59 86	9.9	+0 42	+25.0	
16	12	4504	9.0		63 86	10.0	-1 3	-14.8	
17	12	4508	9.0	10.03	68 93	10.2	-0 13	-10.4	
18	12	4512	9.5		71 94	10.3	+1 3	-29.9	
19	11	4139	9.6		74 103	10.6	+0 22	+14.7	
20	12	4513	9.5		77 103	10.7	+1 9	-13.8	
21	12	4506	9.4		78 104	10.7	-0 48	- 5.2	dpl.
22	12	4503	9.7	11.03	81 105	10.8	-1 17	-30.3	
23	11	4142	9.6		83 108	10.9	+0 38	+25.1	
24	12	4509	9.6		85 108	11.0	-0 8	-25.3	
25	12	4517	9.4		85 109	11.0	+1 40	+ 4.6	
26	12	4502	9.8		88 109	11.0	-1 26	-24.2	
27	12	4505	10		89 110	11.1	-1 2	-16.8	
28	12	4507	9.4		93 112	11.2	-0 40	- 7.5	
29	12	4516	9.8		93 112	11.2	+1 32	- 2.7	
30	12	4500	10		97 117	11.4	-1 53	-22.2	
31					100 118	11.5	+0 33	+28.1	dpl.
32	12	4514	10	11.48	100 119	11.5	+1 12	- 4.6	
33					103 120	11.6	+0 7	- 5.5	
34	-11	4137	10		106 127	11.9	+0 14	+22.3	

5948

## R Ursae Minoris

16<sup>h</sup> 31<sup>m</sup> 59<sup>s</sup> (1855.0) + 72° 35'.3

Periodus irregularis.

Num.	BD.		HP.	Gradus		Magn.	$\Delta\alpha$	$\Delta\delta$	Notae
1	+73° 713	6 <sup>M</sup> .2	5 <sup>M</sup> .98	0	60	6 <sup>M</sup> .0	-15 <sup>m</sup> 9 <sup>s</sup>	+68'.7	PD. GW, 6 <sup>M</sup> .3 (b),
2	72 734	6.3	6.45	7	69	6.4	+ 1 39	+19.4	„ G, 6.4 (wg)
3	72 745	7.0	6.94	30	70	7.0	+11 0	+21.8	„ G-, 7.1 (g)
4	71 789	7.1	7.16	33	72	7.2	- 4 51	-53.2	„ GW+, 7.3
5	73 726	8.3	8.25	0	60	8.2	- 0 6	+39.4	*a
6	72 740	8.5		6	69	8.4	+ 6 33	+ 4.6	
7	73 717	8.5		14	71	8.5	- 9 33	+55.0	
8	72 722	8.0		16	71	8.5	-10 39	+ 7.6	
9	72 725	8.0		20	73	8.6	- 9 0	+ 3.2	
10	72 737	8.4	8.62	14	75	8.6	+ 3 51	-18.8	*b
11	73 724	9.0		26	76	8.7	- 0 45	+37.6	
12	73 730	8.8	8.90	30	81	8.9	+ 3 21	+38.3	*c
13	72 726	9.0		36	86	9.0	- 8 30	-33.0	
14	71 804	8.7		38	87	9.1	+ 7 48	-40.6	
15	72 736	8.9	9.26	43	89	9.2	+ 2 15	+12.7	*d
16	71 779	9.0		48	96	9.4	-11 42	-48.8	
17	72 730	9.3		(51)	97	9.4	- 5 39	- 4.7	
18	71 778	9.0		51	100	9.5	-12 9	-46.1	
19	72 724	9.0		48	102	9.5	- 9 57	+21.2	
20	71 785	9.1		54	104	9.6	- 8 33	-40.3	
21	72 735	9.0	9.62	55	107	9.6	+ 1 48	+10.1	*e
22	72 727	9.0		56	107	9.6	- 8 15	- 8.9	
23	72 733	9.3		59	113	9.8	+ 1 45	-15.8	
24	73 731	9.2		62	114	9.9	+ 6 36	+29.2	
25	72 739	9.5		67	118	10.1	+ 4 21	+16.2	dpl.
26	72 731	9.5		70	115	10.1	- 4 9	- 8.5	
27	72 732	9.4		71	115	10.1	- 3 33	-13.9	
28	72 729	9.5		74	120	10.2	- 6 12	+10.0	
29			10.30	74	123	10.3	+ 3 33	+23.3	*g
30				78	118	10.3	- 3 36	- 1.5	
31				79	121	10.3	- 5 18	-18.0	
32				83	124	10.4	- 2 30	-14.3	
33				93	133	10.8	+ 5 3	+12.3	
34			11.04	98	139	11.0	+ 3 33	- 9.0	*k
35	+72 738	9.5		100	137	11.0	+ 4 9	-22.0	dpl.

Num.	BD.	HP.	Gradus	Magn.	$\Delta\alpha$	$\Delta\delta$	Notae
36			101 139	11. <sup>M</sup> 0	+2 <sup>m</sup> 18 <sup>s</sup>	- 6'.1	
37			106 136	11.1	+4 0	- 1.8	
38			105 142	11.2	+3 12	- 5.4	
39			111 149	11.4	+3 51	+11.8	
40			128 166	12.1	+1 9	- 3.9	
41			135 170	12.4	+1 36	- 3.6	
42			141 177	12.6	+0 36	- 0.2	
43			145 181	12.8	-0 30	- 3.3	
44		12. <sup>M</sup> 93	148 183	12.9	+0 6	+ 0.6	*p
45			150 186	13.0	-0 6	- 3.3	

\* HCO, vol. XXXVII pp. 8-9.

6005

## S Draconis

16<sup>h</sup> 39<sup>m</sup> 51<sup>s</sup> (1855.0) +55° 10'.7

Periodus irregularis.

Num.	BD.		HP.	Gradus		Magn.	$\Delta\alpha$	$\Delta\delta$	Notae
1	+56°	1907	5 <sup>M</sup> .4	5 <sup>M</sup> .44	0	5 <sup>M</sup> .5	-4 <sup>m</sup> 49 <sup>s</sup>	+67'.1	PD. G-, 5 <sup>M</sup> .3
2	55	1872	6.3	6.18	30	6.2	+0 7	+46.9	„ W+, 6.5
3	55	1876	6.7	7.06	0 54	6.8	+2 46	+24.2	„ GW, 7.2
4	55	1878	7.0	7.06	8 74	7.2	+4 0	+29.7	„ WG, 7.4
5	55	1879	7.7		16 87	7.6	+5 34	+28.3	
6	55	1873	8.3	8.04	25 98	7.9	+1 24	+ 1.0	
7	56	1917	8.0	8.22	30 106	8.2	+2 48	+51.7	
8	54	1834	8.4		34 108	8.2	+3 37	-31.3	
9	56	1905	9.0		34 110	8.3	-5 21	+51.7	
10	55	1864	8.7	8.50	37 113	8.4	-2 48	+12.7	
11	54	1827	8.0	8.31	41 116	8.5	-3 17	-30.5	
12	54	1838	8.5		48 119	8.7	+6 4	-53.5	
13	54	1828	8.5		48 122	8.7	-1 45	-28.2	
14	55	1880	8.5		52 130	8.9	+5 42	+13.1	
15	54	1832	8.8		59 136	9.1	+1 57	-42.5	
16	54	1830	9.0		62 142	9.3	-0 31	-26.3	
17	54	1837	9.1		66 141	9.4	+4 58	-44.1	
18	54	1835	9.3	9.59	66 154	9.6	+3 38	-13.1	
19	55	1867	9.5		70 164	9.9	-1 16	+22.5	
20	55	1877	9.5		77 168	10.1	+3 22	+ 5.2	
21					78 170	10.1	-2 45	-19.6	
22	55	1874	9.5		79 172	10.2	+2 8	+ 9.0	
23	55	1868	9.5	10.37	82 175	10.3	-1 13	+ 7.4	
24					82 176	10.3	-2 10	+ 3.0	
25	55	1875	9.5		87 182	10.6	+2 10	- 2.2	
26					87 183	10.6	+3 30	+13.2	
27	+55	1863	9.5		87 188	10.7	-3 6	+18.1	
28					92 190	10.8	-0 6	-20.6	
29					98 187	10.9	-0 2	+27.7	
30					108 189	11.1	-0 35	- 5.8	
31					119 193	11.4	+0 45	+12.3	var.?

6442

## Z Herculis

 $17^{\text{h}} 51^{\text{m}} 34^{\text{s}}$  (1855.0)  $+15^{\circ} 9'.3$ Typus Algol, Periodus:  $3^{\text{d}} 23^{\text{h}} 49^{\text{m}} 545.^*$ 

Num.	BD.		HP.	Gradus		Magn.	$\Delta\alpha$	$\Delta\delta$	Notae
1	$+15^{\circ} 33'27$	$6^{\text{M}}.5$	$6^{\text{M}}.30$	0	0	$6^{\text{M}}.3$	$+2^{\text{m}} 50^{\text{s}}$	$-2'.8$	PD. WG, $6^{\text{M}}.4$
2	14 3378	7.0	7.14	22	22	7.2	$+0 39$	$-17.5$	„ GW, 7.3
3	14 3374	6.5	7.29	27	25	7.4	$+0 12$	$-37.6$	„ GW, 7.5
4	14 3387	7.3	7.97	31	31	7.6	$+2 57$	$-61.5$	„ RG, 7.9, (r)
5	15 3309	7.3	7.99	33	31	7.6	$-0 4$	$+16.3$	„ RG, 7.9, (r)
6	15 3301	8.0	7.76	36	36	7.8	$-2 52$	$+9.2$	
7	14 3381	7.8	7.87	39	37	7.9	$+1 34$	$-40.6$	
8	14 3375	7.8		46	47	8.2	$+0 14$	$-31.4$	„ RG, 8.4, dpl.
9	15 3317	8.3	8.32	49	51	8.4	$+1 39$	$+10.1$	
10	14 3382	8.7	8.43	53	54	8.5	$+1 46$	$-9.8$	
11	15 3335	8.4		52	57	8.6	$+3 15$	$+21.5$	
12	14 3370	8.4		58	60	8.8	$-1 7$	$-25.4$	
13	14 3377	8.8	9.16	64	73	9.2	$+0 39$	$-12.8$	
14	15 3308	9.0	9.08	67	78	9.3	$-0 46$	$+26.1$	
15	15 3319	9.2		68	78	9.3	$+1 51$	$+17.3$	
16	15 3320	9.1		69	78	9.4	$+1 56$	$+6.4$	var.?
17	15 3316	9.3		73	83	9.6	$+1 3$	$-4.6$	
18	15 3315	9.2		78	86	9.8	$+0 46$	$+27.5$	
19	15 3318	9.4		81	89	9.9	$+1 51$	$-3.3$	dpl.
20	15 3322	9.5		84	91	10.0	$+1 58$	$+29.7$	
21	15 3310	9.4	10.14	84	96	10.2	$-0 2$	$+5.2$	
22	15 3313	9.4	10.33	89	97	10.3	$+0 36$	$+28.0$	
23	15 3321	9.5		90	98	10.4	$+1 58$	$+23.3$	
24	15 3314	9.5	10.66	98	103	10.7	$+0 43$	$+24.8$	
25	$+15 3307$	9.5		102	105	10.8	$-1 33$	$+15.4$	
26				109	106	11.0	$+0 55$	$+24.1$	
27				105	109	11.0	$-0 31$	$+9.6$	

\* Min. alterum post  $45^{\text{h}}$ .



6449

## T Draconis

 $17^{\text{h}} 54^{\text{m}} 11^{\text{s}}$  (1855.0)  $+58^{\circ} 14'.0$ Max. =  $2\ 413\ 173^{\text{d}} + 426^{\text{d}} \text{E.}$ 

Num.	BD.		HP.	Gradus		Magn.	$\Delta\alpha$	$\Delta\delta$	Notae
1	+56°	2033	3. <sup>M</sup> 5	3. <sup>M</sup> 90		3. <sup>M</sup> 9	-3 <sup>m</sup> 4 <sup>s</sup>	-80'.4	PD. WG+, 4. <sup>M</sup> 0, $\xi$ Draconis
2	58	1781	6.5	6.67	0 0	6.8	+6 11	+23.7	„ GW, 7.1
3	57	1837	7.4	7.06	5 4	7.0	+9 29	-53.0	„ WG, 7.0
4	59	1851	7.5	7.52	21 28	7.5	-6 7	+50.3	„ GW-, 7.7
5	58	1776	7.8	7.76	24 32	7.7	+2 53	+32.3	(wg)
6	57	1813	7.7		30 36	7.8	-5 59	-45.6	
7	57	1832	8.0	7.93	32 40	8.1	+3 55	-52.6	(g)
8	58	1762	8.3		37 56	8.2	-7 58	+20.4	
9	58	1767	8.7		43 65	8.4	-5 58	+ 7.4	
10	59	1870	8.5	8.46	45 69	8.5	+3 30	+56.7	
11	58	1783	8.9		49 73	8.6	+7 36	+29.3	
12	58	1772	8.5	8.65	52 74	8.6	-1 15	+31.9	
13	59	1866	8.8	8.83	54 76	8.7	+0 58	+48.3	
14	59	1864	9.3		55 79	8.8	-0 25	+52.3	
15	57	1814	8.7		60 82	8.9	-5 7	-32.7	
16	58	1779	9.2		63 84	8.9	+4 29	+40.3	
17	57	1834	9.2		67 88	9.1	+6 0	-44.9	
18	57	1831	9.0	8.88	67 89	9.1	+3 53	-48.5	
19	58	1782	9.0		69 94	9.2	+7 33	+ 6.1	
20	58	1774	9.3	9.46	74 101	9.4	+1 50	+15.2	
21	57	1816	9.3		79 103	9.5	-3 40	-17.8	
22	58	1773	9.4	9.68	84 107	9.7	+0 48	- 6.9	
23	58	1770	9.4		87 112	9.8	-3 52	- 2.6	
24	57	1820	9.4		90 113	9.9	-1 27	-27.0	
25	57	1822	9.5		94 120	10.1	-0 23	-15.1	
26	57	1821	9.5		96 124	10.2	-0 47	-25.3	
27	57	1828	9.5		101 125	10.3	+2 1	-17.3	
28					101 127	10.3	-3 59	+ 1.3	
29	57	1826	9.5		103 129	10.4	+1 54	-29.9	
30					103 130	10.4	-2 58	+ 4.8	
31	58	1775	9.5	10.59	103 130	10.4	+2 14	+14.6	
32					104 134	10.5	+0 24	+20.6	
33					110 137	10.7	-3 40	-35.6	
34					113 138	10.8	-3 39	- 0.6	
35	+58	1771	9.5	10.82	115 138	10.8	-1 56	- 4.8	

Num.	BD.		HP.	Gradus	Magn.	$\Delta\alpha$	$\Delta\delta$	Notae
36				122 139	10 <sup>M</sup> .9	-0 <sup>m</sup> 39 <sup>s</sup>	-18'.0	dpl. *
37				122 140	11.0	-2 48	+ 3.6	
38				124 140	11.0	+0 37	-18.1	
39				134 144	11.3	-0 1	- 0.1	
40				137 148	11.4	-0 45	- 4.8	
41				142 153	11.6	-0 50	- 5.7	
42				152 161	12.0	-0 9	+ 0.2	
43				162 169	12.4	+0 5	- 2.1	
44				162 174	12.5	-0 12	- 0.8	

\* Hartwig (A. N. 3553): -1<sup>s</sup>.38, -8<sup>"</sup>.6.

6636

## U Sagittarii

 $18^{\text{h}} 23^{\text{m}} 21^{\text{s}}$  (1855.0)  $-19^{\circ} 13'.3$ Max. =  $2\ 404\ 245^{\text{d}}0 + 6^{\text{d}}7446\ \text{E.}$ 

Num.	BD.		HP.	Gradus		Magn.	$\Delta\alpha$	$\Delta\delta$	Notae
1	-18° 4988	6. <sup>M</sup> 0	5. <sup>M</sup> 17	0		5. <sup>M</sup> 2	-0 <sup>m</sup> 25 <sup>s</sup>	+43'.4	
2	18 4982	6.5	5.76	14		5.7	-1 41	+42.2	(g)
3	19 5077	7.0	7.19	0	43	6.7	+3 30	- 9.1	(r)
4	18 4994	7.1	6.98	4	48	6.9	+1 19	+45.2	
5	18 4986	7.5	6.87	8	54	7.0	-0 33	+13.4	
6	19 5059	8.0	6.89	10	57	7.1	+0 36	+ 9.1	(rg)
7	19 5071	7.5	7.33	16	60	7.2	+2 29	-39.7	
8	18 5008	8.0		18	62	7.3	+3 44	+34.0	
9	19 5053	8.5	7.40	21	67	7.4	+0 20	- 0.1	(rg)
10	18 4987	8.1		27	76	7.6	-0 28	+51.8	*
11	19 5057	8.7		35	82	7.8	+0 34	-20.2	
12	19 5036	8.4		39	88	7.9	-0 30	- 2.1	
13	19 5042	8.3	7.82	42	95	8.1	-0 16	+ 2.2	
14	19 5075	8.8		49		8.3	+3 5	-24.9	
15	19 5060	9.1		54	101	8.4	+0 38	-10.0	
16	19 5055	8.8	8.47	57	106	8.5	+0 23	- 5.7	
17	19 5052	9.0	8.81	60	110	8.7	+0 19	- 9.2	
18	19 5030	8.8		60	111	8.7	-1 32	-14.3	
19	19 5044	9.1	8.66	61	113	8.7	-0 9	+ 0.5	mltpl.
20	19 5038	9.4		64	114	8.8	-0 25	- 6.8	
21	19 5046	9.3		64	117	8.8	-0 3	- 2.8	
22	19 5028	8.8		66	117	8.9	-2 0	-23.2	
23	19 5041	9.2		66	118	8.9	-0 19	+ 8.1	
24	19 5045	9.3		67	118	8.9	-0 8	- 2.7	dpl.
25	19 5048	9.2	8.68	68	120	8.9	+0 6	+12.3	
26	18 4991	9.3		72	128	9.1	-0 4	+22.3	
27	19 5037	9.1		72	123	9.1	-0 26	- 1.3	
28	19 5039	9.5		78	124	9.2	-0 24	-10.7	
29	19 5043	9.4		80	126	9.2	-0 12	- 7.7	
30				80	127	9.3	-0 5	- 0.2	CPhD. -19°6904, 8. <sup>M</sup> 8
31	19 5063	9.3		80	128	9.3	+1 30	-23.1	
32	19 5061	9.5		83	129	9.4	+1 2	-12.3	dpl.
33	19 5058	9.3		83	133	9.4	+0 35	+ 1.5	
34	19 5032	9.4		85	134	9.5	-1 11	+ 5.3	
35	-18 4983	9.5		85	141	9.6	-1 27	+26.3	

Num.	BD.		HP.	Gradus	Magn.	$\Delta\alpha$	$\Delta\delta$	Notae
36				93 136	9 <sup>M</sup> .7	-0 <sup>m</sup> 1 <sup>s</sup>	-10'.8	
37	-19° 5040	9 <sup>M</sup> .5		88 140	9.7	-0 23	+ 9.4	
38	19 5035	9.4		94 140	9.7	-0 42	-26.8	
39	18 4989	9.5		89 140	9.7	-0 21	+16.6	
40	18 4995	9.5		89 144	9.7	+1 22	+26.1	
41	19 5054	9.5		94 142	9.8	+0 22	-20.5	
42				98 144	9.9	-1 1	-13.8	
43	19 5056	9.6		98 146	9.9	+0 32	+ 8.8	
44	19 5049	9.5		100 157	10.1	+0 8	+ 1.5	
45	19 5033	9.5		104 151	10.1	-1 9	-15.8	
46	19 5051	9.8	10 <sup>M</sup> .30	104 153	10.1	+0 18	-13.3	
47	19 5066	9.9		106 153	10.2	+1 44	- 3.9	
48	19 5050	9.5		106 157	10.2	+0 18	- 4.2	
49	18 4985	9.8		100 160	10.2	-0 52	+15.6	
50	19 5062	9.5		107 161	10.3	+1 18	+ 9.0	
51	19 5034	10	10.25	110 162	10.4	-0 46	+ 1.3	
52	19 5031	9.4		110 162	10.4	-1 17	+ 2.3	
53	-18 4997	9.5		110 164	10.4	+1 40	+21.3	
54				113 166	10.5	+1 28	- 6.1	trpl.

\* Olim designata V Sagittarii (Chandler I, 6633).

6636 a

## RX Herculis

 $18^{\text{h}} 23^{\text{m}} 56^{\text{s}}$  (1855.0)  $+12^{\circ} 30'.9$ Typus Algol, Periodus:  $21^{\text{h}} 20^{\text{m}} 34^{\text{s}}.5$ .

Num.	BD.		HP.	Gradus	Magn.	$\Delta\alpha$	$\Delta\delta$	Notae	
1	+13°	3658	6 <sup>M</sup> .8	6 <sup>M</sup> .90	0	6 <sup>M</sup> .9	-1 <sup>m</sup> 9 <sup>s</sup>	+74'.9	PD. WG, 7 <sup>M</sup> .1 „ WG, 7.4
2	13	3677	6.8	7.17	1	7.0	+1 33	+67.0	
3	11	3478	7.7	7.22	9	7.3	-1 39	-57.4	
4	13	3667	8.0		22	8.0	+0 35	+34.2	dpl.
5	11	3481	8.0	8.09	23	8.1	-1 9	-41.6	
6	11	3479	8.1	8.09	24	8.1	-1 30	-54.7	
7	12	3546	7.7	8.08	25	8.1	-1 9	- 9.5	
8	13	3657	8.3		33	8.4	-1 21	+60.8	
9	12	3570	8.6	8.58	35	8.5	+1 48	-20.1	
10	12	3539	8.6		36	8.6	-2 10	-14.7	
11	12	3533	9.1		41	8.8	-2 42	-16.0	
12	12	3548	8.7	8.87	44	8.9	-0 59	+20.1	
13	12	3568	8.6	8.80	44	8.9	+1 30	-15.3	
14	12	3567	9.1		49	9.2	+1 12	-27.7	
15	12	3561	9.1	9.38	50	9.3	+0 17	+ 2.1	
16	12	3572	8.9		53	9.4	+2 6	-19.8	
17	12	3571	9.1		56	9.5	+2 3	-10.9	
18	12	3566	9.3		57	9.5	+1 0	+ 4.3	
19	12	3543	9.2	9.46	61	9.7	-1 57	+12.6	
20	13	3674	9.3		61	9.7	+1 7	+29.4	
21	12	3545	9.5		65	9.9	-1 33	+12.1	
22	12	3555	9.3	9.85	65	9.9	-0 12	+ 3.3	
23	12	3556	9.3		68	10.0	-0 5	-21.0	
24	12	3563	9.4	10.15	70	10.1	+0 30	-12.7	
25	12	3554	9.3	10.21	71	10.2	-0 12	- 7.8	
26	12	3569	9.4		71	10.2	+1 38	-11.8	
27	12	3547	9.0		74	10.3	-1 5	+ 4.3	
28	12	3541	9.3		74	10.3	-2 1	+13.1	
29	12	3558	9.5	10.39	75	10.4	+0 1	+ 6.6	
30	12	3552	9.4		79	10.5	-0 31	+28.1	
31	12	3549	9.5		79	10.5	-0 50	-14.5	
32	12	3542	9.5		82	10.6	-1 59	-23.0	
33	12	3564	9.5		83	10.7	+0 32	- 0.4	
34	12	3553	9.5	10.68	85	10.7	-0 27	+ 0.8	
35	12	3544	9.5		89	10.9	-1 43	-14.7	
36	12	3559	9.5		89	10.9	+0 7	- 4.9	
37	12	3551	9.5		91	11.0	-0 31	-21.3	
38	+12	3562	9.5		101	11.4	+0 30	- 4.5	

6682

## X Ophiuchi

 $18^{\text{h}} 31^{\text{m}} 26^{\text{s}}$  (1855.0)  $+8^{\circ} 42'.3$ Max. =  $2\,410\,061^{\text{d}} + 335^{\text{d}} \text{ E.}$ 

Num.	BD.		HP.	Gradus	Magn.	$\Delta\alpha$	$\Delta\delta$	Notae
1	+9°	3783	5 <sup>M</sup> .3	5 <sup>M</sup> .40	5 <sup>M</sup> .4	-1 <sup>m</sup> 53 <sup>s</sup>	+17'.9	PD. GW, 5 <sup>M</sup> .5
2	8	3797	7.3	7.07	7.0	+2 2	+ 1.8	„ GW, 7.3
3	8	3791	7.7	7.37	7.1	+1 18	- 6.2	(1g)
4	8	3799	7.5	7.22	7.3	+2 25	- 2.9	„ WG, 7.5
5	9	3789	8.5	8.01	8.0	-0 55	+25.4	
6	7	3805	8.0	8.08	8.3	+2 58	-56.0	
7	9	3816	8.5		8.6	+2 2	+51.5	
8	9	3794	8.4	8.95	8.9	-0 14	+57.9	
9	9	3793	9.0		9.1	-0 16	+28.4	
10	7	3797	8.5		9.1	+1 21	-57.5	
11	9	3814	8.5		9.2	+1 58	+51.5	
12	9	3791	9.0		9.3	-0 34	+23.4	
13	9	3800	9.2		9.5	+0 32	+18.5	
14	8	3773	9.2	9.49	9.5	-0 33	-23.4	
15	8	3774	9.1		9.5	-0 31	-17.0	
16	8	3772	9.5		9.7	-0 42	+ 6.8	
17	9	3798	9.5		9.7	+0 4	+26.0	
18	8	3787	9.2		9.8	+1 10	- 3.4	
19	8	3796	9.3		9.8	+2 0	-24.9	
20	9	3804	9.4		9.8	+0 54	+23.2	
21	8	3793	9.4	9.77	9.9	+1 34	- 1.7	
22	8	3767	9.5		9.9	-1 50	-14.8	
23	8	3786	9.5		10.0	+1 7	-26.3	
24	8	3789	9.3		10.0	+1 15	+ 8.8	
25	8	3779	9.4	10.14	10.0	-0 1	- 6.6	
26					10.1	-0 14	+ 0.9	dpl.
27	8	3782	9.5		10.1	+0 18	-28.7	
28	8	3783	9.5	10.34	10.2	+0 21	- 1.5	
29	8	3794	9.3		10.2	+1 41	-20.0	
30					10.2	+0 3	- 6.7	
31	8	3788	9.5		10.2	+1 13	+ 8.8	
32	8	3784	9.5		10.3	+1 0	-28.8	
33					10.3	+1 24	- 2.7	
34	8	3795	9.4		10.3	+1 54	-26.3	dpl.
35	+8	3792	9.5		10.3	+1 19	-21.7	

Num.	BD.		HP.	Gradus	Magn.	$\Delta\alpha$	$\Delta\delta$	Notae
36	+8° 3778	9 <sup>M</sup> .5	10 <sup>M</sup> .29	95 73	10 <sup>M</sup> .3	-0 <sup>m</sup> 6 <sup>s</sup>	+ 2'.0	dpl.
37	8 3770	9.4		96 73	10.4	-0 59	-19.7	
38	8 3790	9.5		97 73	10.4	+1 19	-23.5	
39				99 73	10.4	+0 12	-18.6	
40	8 3785	9.5		101 74	10.5	+1 0	+ 6.9	
41				101 75	10.5	-0 44	-10.6	
42	8 3771	9.5		101 75	10.5	-0 49	+ 3.8	
43				103 76	10.6	-0 27	+15.0	
44	9 3806	9.5		104 76	10.6	+1 15	+23.0	
45				104 76	10.6	-0 23	+ 2.4	
46				106 77	10.6	+0 52	-21.3	
47	8 3769	9.5		108 78	10.7	-1 1	-23.1	
48				108 79	10.7	+1 0	- 6.1	
49	9 3813	9.5		108 79	10.7	+1 58	+21.7	
50	8 3776	9.5		108 80	10.7	-0 19	-14.3	
51				110 80	10.7	-0 52	-22.0	
52	8 3768	9.5		112 81	10.8	-1 6	-17.9	
53	8 3775	9.5		112 83	10.8	-0 27	- 4.6	
54	8 3777	9.5		106 84	10.8	-0 18	+10.1	
55	9 3784	9.5		103 87	10.8	-1 39	+26.3	
56				114 87	11.0	-0 1	+10.1	
57	+9 3788	9.5		114 95	11.1	-1 3	+26.4	

6726

## T Aquilae

18<sup>h</sup> 38<sup>m</sup> 47<sup>s</sup> (1855.0) + 8° 35'.7

Variatio irregularis.

Num.	BD.		HP.	Gradus		Magn.	$\Delta\alpha$	$\Delta\delta$	Notae
1	+8° 3819	7. <sup>M</sup> 4	7. <sup>M</sup> 19	0	0	7. <sup>M</sup> 2	-1 <sup>m</sup> 53 <sup>s</sup>	- 6'.7	PD. WG, 7. <sup>M</sup> 5 (rg)
2	9 3866	7.8		9	12	7.7	+1 14	+40.3	
3	7 3824	8.1		19	21	8.1	-1 9	-45.7	
4	7 3849	8.0		22	22	8.2	+2 58	-49.0	
5	8 3816	8.1	8.16	23	23	8.2	-2 27	+18.3	
6	9 3837	8.3		23	25	8.3	-3 21	+27.6	
7	8 3837	8.5	8.19	23	27	8.3	+0 2	-15.2	
8	9 3841	8.1	8.36	23	27	8.3	-2 23	+25.5	
9	7 3842	8.4		28	36	8.6	+2 23	-37.8	
10	8 3832	8.6		29	37	8.7	-0 32	+13.2	
11	8 3844	8.7		32	42	8.8	+1 19	+11.7	
12	8 3836	9.2	9.30	39	45	9.0	+0 1	-18.4	
13	8 3827	9.3	9.10	39	48	9.1	-1 10	- 5.2	
14	8 3834	8.7	8.97	39	49	9.1	-0 4	+12.3	
15	8 3821	9.2		39	53	9.1	-1 44	+19.3	
16	8 3824	9.4	9.44	46	57	9.4	-1 30	- 5.9	
17	8 3823	9.4		52	57	9.5	-1 32	-20.9	
18	8 3842	9.2		52	60	9.5	+1 8	+20.7	
19	8 3826	9.5		58	64	9.7	-1 20	-15.5	
20	8 3841	9.5		60	64	9.7	+1 8	-20.8	
21	8 3829	9.5		61	66	9.8	-1 5	- 9.1	
22	8 3838	9.5	9.82	61	67	9.8	+0 12	+ 4.5	
23	8 3820	9.5		63	67	9.8	-1 49	-26.3	
24	8 3850	9.4		63	67	9.8	+1 47	+17.8	
25	8 3845	9.5		66	68	9.9	+1 22	+13.8	
26	8 3825	9.5		66	68	9.9	-1 20	+18.9	
27	8 3822	9.4		70	70	10.0	-1 34	+ 7.8	
28	8 3833	9.5	9.88	72	71	10.0	-0 12	+10.3	
29	8 3843	9.5		73	72	10.1	+1 9	+17.3	
30	8 3848	9.4		78	73	10.1	+1 37	-23.0	
31	9 3867	9.5		78	73	10.1	+1 24	+26.1	
32	8 3840	9.5		81	74	10.2	+0 38	- 4.8	
33				83	76	10.3	-1 5	-11.1	
34	8 3846	9.5		83	77	10.3	+1 23	+16.8	
35	+8 3847	9.5		86	77	10.3	+1 26	-16.2	



Num.	BD.		HP.	Gradus	Magn.	$\Delta\alpha$	$\Delta\delta$	Notae
36	+8° 3849	9. <sup>M</sup> 5		88 79	10. <sup>M</sup> 4	+1 <sup>m</sup> 45 <sup>s</sup>	+23'.2	*
37	8 3830	9.5		88 80	10.4	-0 39	+ 8.2	
38	9 3852	9.5		90 84	10.5	-1 15	+26.8	
39				95 87	10.6	-1 4	+15.3	
40	+9 3856	9.5		95 87	10.6	-0 56	+28.0	
41				97 88	10.7	+0 3	- 4.9	

\* BD. + 8° 3828, 9.<sup>M</sup>5, triplex.

6749

## S Scuti

18<sup>h</sup> 42<sup>m</sup> 28<sup>s</sup> (1855.0) — 8° 4'.2Max. = 2 415 911<sup>d</sup> + 23<sup>d</sup> E?

Num.	BD.		HP.	Gradus	Magn.	$\Delta\alpha$	$\Delta\delta$	Notae
1	-8° 4686	5 <sup>M</sup> .5	5 <sup>M</sup> .09		5 <sup>M</sup> .1	-6 <sup>m</sup> 50 <sup>s</sup>	- 21'.1	ε Scuti (U.A.).
2	9 4876	6.6	6.26	0	6.2	+2 38	-100.5	
3	8 4701	7.0	7.01	14	6.9	-3 44	- 12.2	
4	8 4717	7.0	7.18	16	7.0	-1 1	- 24.1	
5	8 4733	7.2	7.39	19	7.2	+0 53	- 6.3	
6	8 4687	7.5	7.06	20	7.2	-6 47	- 26.7	
7	7 4700	7.4	7.19	23	7.4	-3 25	+ 20.2	
8	8 4714	7.5	7.68	29	7.8	-1 22	- 32.9	
9	9 4868	8.0		31	7.9	+1 44	- 70.8	
10	7 4746	8.3		34	8.0	+1 49	+ 38.7	
11	7 4726	8.0	8.18	37	8.2	-0 45	+ 20.5	
12	8 4732	8.2	8.22	38	8.2	+0 53	- 2.4	
13	7 4739	8.3	8.28	43	8.5	+0 21	+ 4.1	
14	7 4747	8.3		45	8.6	+1 50	+ 54.7	
15	8 4721	8.5	8.72	48	8.7	-0 30	- 17.0	
16	7 4736	8.5		51	8.9	+0 11	+ 53.7	
17	8 4723	8.9		51	8.9	-0 16	- 28.6	
18	7 4740	8.7		52	8.9	+0 50	+ 6.4	
19	8 4729	8.8	9.00	54	9.0	+0 26	- 4.4	
20	7 4729	8.9		57	9.1	-0 25	+ 26.2	
21	7 4744	8.9		57	9.1	+1 43	+ 21.5	
22	8 4736	9.0		60	9.3	+1 19	- 30.1	
23	8 4731	9.2	9.53	62	9.4	+0 40	- 10.1	
24	7 4745	9.1		64	9.4	+1 48	+ 18.6	
25	7 4728	9.3		68	9.5	-0 35	+ 27.2	
26	7 4730	9.3	9.40	71	9.6	-0 23	+ 15.0	
27	7 4743	9.1		74	9.7	+1 31	+ 12.2	
28	8 4739	9.4		75	9.8	+1 53	+ 0.3	
29	8 4735	9.4	9.72	78	9.8	+1 8	+ 4.3	
30	7 4742	9.5		82	10.0	+1 15	+ 29.6	dpl.
31	8 4716	9.4		83	10.0	-1 12	- 14.5	
32	7 4732	9.5	10.13	85	10.1	-0 4	+ 19.3	
33	8 4730	9.5		89	10.2	+0 33	- 26.9	
34	-7 4738	10	10.18	92	10.2	+0 20	+ 12.9	

6773

## U Scuti

18<sup>h</sup> 46<sup>m</sup> 19<sup>s</sup> (1855.0) -12° 47.2Periodus: 9<sup>d</sup>5?

Num.	BD.		HP.	Gradus	Magn.	$\Delta\alpha$	$\Delta\delta$	Notae
1	-13° 5172	5 <sup>M</sup> .5	5 <sup>M</sup> .36		5 <sup>M</sup> .4	+4 <sup>m</sup> 56 <sup>s</sup>	-14'.5	
2	13 5119	6.5	6.47		6.5	-3 59	-57.2	
3	12 5228	6.9	7.08		7.1	+4 34	+ 0.6	
4	11 4818	7.2	7.14		7.2	+1 59	+76.9	
5	13 5162	7.8	8.38	0	8.4	+2 57	-30.0	
6	13 5123	8.5		5	8.6	-3 26	-49.7	
7	11 4804	7.8		8	8.7	+0 1	+60.6	
8	11 4786	7.8		10	8.8	-2 9	+58.9	
9	12 5218	8.3	9.05	16	9.0	+3 19	-11.8	
10	13 5143	8.5	9.18	22	9.2	-0 4	-23.8	
11	13 5154	8.7	9.42	26	9.4	+1 13	-27.0	
12	12 5194	8.8	9.54	29	9.5	-1 50	+15.3	
13	12 5198	8.9	9.60	31	9.6	-1 6	+ 2.2	
14	13 5148	8.9		34	9.7	+0 39	-18.0	
15	13 5156	8.8		35	9.8	+1 37	-21.8	
16	12 5204	9.2	10.42	40	10.0	+0 45	- 7.6	dpl.
17	13 5152	9.2		42	10.0	+1 3	-19.4	
18	13 5151	9.2		46	10.2	+1 1	-25.7	
19	12 5209	9.3		50	10.3	+1 12	+16.0	
20	12 5191	9.1		53	10.4	-2 1	+21.4	
21	12 5205	9.6		56	10.5	+0 58	+30.2	
22	12 5199	9.4	10.64	60	10.7	-0 53	+ 7.1	
23	12 5197	9.5		63	10.8	-1 12	+27.3	
24	13 5134	9.8		67	10.9	-1 36	-21.1	
25	13 5136	9.3		68	11.0	-1 12	-18.4	
26	12 5192	9.8		71	11.1	-1 58	- 7.2	
27	12 5208	9.3		73	11.2	+1 7	-11.8	
28	12 5196	9.5	11.06	76	11.3	-1 31	+14.8	
29	12 5203	9.6	11.16	77	11.3	+0 2	+14.4	dpl.
30				81	11.5	-0 28	-13.7	
31	-12 5200	9.8	11.64	85	11.6	-0 47	-12.4	
32			11.68	87	11.7	+0 8	+ 3.3	
33				92	11.9	-0 13	- 3.1	
34			12.08	95	12.0	+0 1	+ 0.9	

6834

## V Aquilae

18<sup>h</sup> 56<sup>m</sup> 39<sup>s</sup> (1855.0) — 5° 53'.7

Variatio irregularis.

Num.	BD.		HP.	Gradus		Magn.	$\Delta\alpha$	$\Delta\delta$	Notae
1	-5° 4876	3. <sup>M</sup> 0	3. <sup>M</sup> 55			3. <sup>M</sup> 5	+ 1 <sup>m</sup> 53 <sup>s</sup>	+48'.0	λ Aquilae, Fl. 16 i Aquilae, Fl. 12 *
2	5 4840	4.7	4.15			4.2	- 2 43	- 2.8	
3	4 4663	6.8	7.10	0	0	7.0	- 3 12	+75.2	
4	5 4848	7.0	7.10	4	7	7.2	- 1 6	+ 7.7	
5	6 5005	7.3	7.69	21	21	7.7	- 2 58	-30.1	
6	5 4841	8.1		25	26	7.8	- 1 59	+ 8.8	
7	6 5007	7.7		31	27	7.9	- 2 37	-41.3	
8	5 4877	7.8	7.85	27	29	7.9	+ 2 52	+46.8	
9	5 4845	8.1	8.00	29	29	7.9	- 1 32	+ 9.2	
10	6 5009	7.3	8.03	32	28	8.0	- 2 30	-29.5	
11	5 4884	7.8		34	31	8.0	+ 3 51	+20.6	
12	6 5020	8.2		36	32	8.1	- 1 7	- 8.5	
13	6 5013	8.5		40	33	8.2	- 2 8	-44.0	
14	5 4882	8.3		41	40	8.3	+ 3 18	+43.1	
15	5 4846	8.9	8.65	47	49	8.6	- 1 32	- 0.9	
16	5 4875	8.5	8.72	53	51	8.7	+ 1 54	+26.4	
17	5 4874	9.0		56	55	8.9	+ 1 50	+19.5	
18	6 5033	8.8		67	55	9.1	+ 0 53	-29.5	
19	5 4854	8.8	9.03	71	59	9.3	- 0 23	+14.6	
20	6 5025	9.0		73	61	9.4	- 0 23	-22.9	
21	5 4857	9.1	9.71	74	65	9.6	- 0 12	+25.9	
22	6 5034	9.0		77	67	9.8	+ 1 58	-23.6	
23	5 4866	9.4		77	69	9.8	+ 0 58	+26.7	
24	5 4868	9.5		88	65	9.9	+ 1 7	+ 9.3	
25	5 4861	9.3		81	70	10.0	+ 0 29	+26.8	
26	5 4850	9.3		83	71	10.0	- 1 2	+25.3	
27	5 4873	9.5		96	66	10.1	+ 1 32	+ 8.2	
28	6 5030	9.2		81	74	10.1	+ 0 22	-19.3	
29	5 4871	9.5		98	68	10.2	+ 1 28	+ 7.3	
30	5 4856	9.4	10.38	88	72	10.2	- 0 16	+15.2	
31	5 4843	9.5		84	74	10.2	- 1 49	- 0.4	
32	6 5027	9.5		85	75	10.2	- 0 21	-13.7	
33	5 4865	9.5		95	71	10.3	+ 0 55	+12.3	
34	5 4864	9.5		92	73	10.3	+ 0 52	+20.5	
35	-5 4853	9.5		98	76	10.5	- 0 46	+16.0	

Num.	BD.		HP.	Gradus	Magn.	$\Delta\alpha$	$\Delta\delta$	Notae
36	-5° 4863	9 <sup>M</sup> .6		100 79	10 <sup>M</sup> .7	+0 <sup>m</sup> 46 <sup>s</sup>	+22'.7	
37				101 79	10.7	-0 14	- 3.2	
38	6 5024	9.8		102 80	10.7	-0 44	- 8.6	
39				97 82	10.7	-0 55	-19.7	
40	5 4849	9.7		106 81	10.9	-1 3	+20.4	
41	5 4870	9.5		110 83	11.0	+1 22	+18.1	dpl.
42	5 4847	9.8	10 <sup>M</sup> .99	112 85	11.1	-1 12	- 3.4	
43	} 5 4869	9.7		{115 84	11.2	+1 15	+29.0	
44				{117 85	11.2	+1 16	+27.9	
45	6 5019	9.8		117 86	11.3	-1 14	-28.6	
46	-5 4859	9.7	11.41	123 87	11.5	+0 5	- 3.7	dpl.

\* variabilis? (U.A. pag. 95).

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## X Lyrae

19<sup>h</sup> 7<sup>m</sup> 10<sup>s</sup> (1855.0) + 26° 32'.0

Variatio ignota.

Num.	BD.		HP.	Gradus	Magn.	$\Delta\alpha$	$\Delta\delta$	Notae
1	+27° 3314	6 <sup>M</sup> .2	6 <sup>M</sup> .06	0	6 <sup>M</sup> .1	+2 <sup>m</sup> 59 <sup>s</sup>	+68'.5	PD. WG, 6 <sup>M</sup> .4
2	26 3474	7.4	6.41	5	6.2	-1 32	- 2.2	„ GW, 6.6
3	27 3313	7.0	6.26	13	6.4	+2 55	+40.3	„ GW-, 6.8
4	27 3307	7.2	6.70	19	6.5	+1 59	+70.7	„ GW, 7.1
5	25 3757	6.9	6.73	23	6.6	+0 47	-61.2	„ GW, 7.2
6	26 3504	7.5	7.06	38	7.0	+3 5	+ 5.1	„ GW, 7.6
7	26 3458	8.0		43	7.2	-4 46	+19.7	
8	26 3472	8.1	7.38	50	7.3	-1 39	-22.6	
9	26 3477	7.5	7.42	52	7.4	-1 19	-31.5	„ GW, 8.0 *
10	26 3476	7.7	7.48	57	7.5	-1 27	-29.7	
11	26 3496	8.2	7.40	58	7.6	+1 43	- 3.1	
12	26 3485	8.3	7.83	64	7.8	-0 7	- 8.0	
13	26 3507	8.7		72	8.0	+3 40	+22.3	
14	26 3509	8.3		72	8.0	+3 58	+ 1.7	
15	26 3473	8.5	8.16	75	8.1	-1 39	+ 3.8	
16	26 3475	9.0		77	8.2	-1 27	-22.6	
17	26 3462	8.5		78	8.2	-3 49	+10.0	
18	26 3479	8.9		78	8.2	-0 52	-20.8	
19	26 3492	8.6		81	8.3	+1 11	+14.5	
20	26 3460	8.9		85	8.4	-4 26	+25.8	
21	27 3257	8.5		85	8.4	-3 58	+52.6	
22	26 3490	9.0	8.51	85	8.4	+0 46	-19.3	
23	25 3748	8.8		89	8.5	-0 41	-61.5	
24	27 3285	8.9		89	8.5	-0 21	+51.9	
25	27 3287	8.6		92	8.6	-0 8	+55.2	
26	27 3290	8.7		92	8.6	+0 17	+53.4	
27	26 3464	8.8		94	8.6	-3 40	-24.8	
28	26 3478	9.1		94	8.6	-1 0	-29.2	
29	27 3298	8.9		95	8.7	+0 39	+37.8	
30	26 3498	8.9		97	8.7	+2 17	-24.5	
31	26 3488	9.1	8.88	100	8.8	+0 15	-22.4	
32	25 3755	8.9		101	8.9	+0 34	-33.8	
33	27 3302	8.7		101	8.9	+1 7	+36.1	
34	27 3274	9.0		111	9.1	-1 30	+34.8	
35	+26 3470	9.3		113	9.2	-1 45	+23.2	

Num.	BD.		HP.	Gradus	Magn.	$\Delta\alpha$	$\Delta\delta$	Notae
36	+26° 3471	9 <sup>M</sup> .4		118	9 <sup>M</sup> .3	-1 <sup>m</sup> 42 <sup>s</sup>	+19'.1	AGC. dpl.
37	26 3491	9.1		119	9.3	+1 9	-20.4	" "
38	26 3483	9.3	9 <sup>M</sup> .24	122	9.4	-0 26	-20.5	
39	26 3495	9.4		122	9.4	+1 29	- 3.5	
40	26 3489	9.5	9.44	125	9.5	+0 18	- 3.6	
41		(9.5)		127	9.6	+0 37	-21.8	AGC. 9724
42	26 3481	9.4		128	9.6	-0 46	+20.2	
43	26 3482	9.4	9.58	128	9.6	-0 34	-16.8	dpl.
44	26 3497	9.5		129	9.7	+1 47	+21.8	
45	26 3487	9.5	9.98	134	9.8	0 0	+23.5	
46	26 3493	9.5		136	9.9	+1 17	-29.8	
47				136	9.9	-0 22	- 0.7	
48	26 3484	9.5		137	9.9	-0 18	-27.5	
49	26 3480	9.5		140	10.0	-0 50	+ 4.6	
50	+26 3494	9.5		141	10.0	+1 26	-25.5	

\* dpl.  $\Sigma$  2480.

## U Sagittae\*

19<sup>h</sup> 12<sup>m</sup> 28<sup>s</sup> (1855.0) + 19° 20'.9Typus Algol, Periodus: 3<sup>d</sup> 9<sup>h</sup> 8<sup>m</sup> 10<sup>s</sup>.2.

Num.	BD.	HP.	Gradus	Magn.	$\Delta\alpha$	$\Delta\delta$	Notae
1	+19° 3956	6 <sup>M</sup> .0	6 <sup>M</sup> .14	0	6 <sup>M</sup> .3	-3 <sup>m</sup> 44 <sup>s</sup>	+36'.1 PD. WG, 6 <sup>M</sup> .3
2	18 4011	6.3	6.71	6	6.6	-3 17	-65.2 „ RG, 6.7
3	19 4000	6.5	6.47	8	6.7	+5 0	+38.5 „ W, 6.7
4	18 4043	6.8	6.77	13	6.9	+2 9	-28.3 „ GW, 7.0 dpl. **
5	19 3997	7.1	7.05	13	6.9	+4 25	+39.2 „ WG, 7.2
6	18 4014	7.0	6.97	16	7.1	-2 1	-37.6 „ GW, 7.4
7	19 3959	7.2	7.10	19	7.2	-3 21	-10.9 „ WG, 7.5
8	18 4024	7.7		24	7.5	-1 0	-45.6
9	20 4090	7.7	7.93	24	7.5	-2 52	+42.0
10	19 3996	7.6	7.82	27	7.7	+4 23	-14.5
11	20 4123	7.8	7.80	28	7.7	+4 38	+57.2
12	19 3972	8.0	8.20	33	8.0	-0 49	+35.1
13	18 4037	8.0	8.23	34	8.0	+1 40	-31.0
14	19 3976	8.0	8.12	36	8.1	+0 38	+ 6.4
15	19 3991	8.0	8.40	39	8.2	+2 48	+11.8
16	19 3981	8.3	8.41	41	8.3	+1 42	- 9.0
17	18 4020	8.0	8.39	43	8.4	-1 12	-26.6
18	19 3978	8.6	8.60	45	8.5	+1 13	-13.5
19	20 4095	8.3		45	8.5	-1 53	+57.3
20	18 4040	8.2		47	8.6	+2 6	-43.7
21	19 3961	8.2		49	8.7	-3 18	+25.8 AGC. dpl. r''
22	18 4015	8.3		51	8.8	-1 56	-46.8
23	18 4039	8.5	8.92	52	8.8	+1 49	-36.4
24	18 4029	8.5		54	8.9	+0 13	-50.6
25	18 4009	8.5		57	9.1	-3 27	-34.0
26	19 3973	9.2		61	9.2	-0 31	+27.8
27	19 3971	9.0	9.23	64	9.4	-0 56	+37.8
28	19 3974	9.2	9.65	64	9.4	-0 4	+ 1.1
29	18 4017	8.9		66	9.5	-1 35	-43.4
30	19 3987	9.0		68	9.6	+2 36	+10.9
31	19 3982	9.1	9.18	69	9.6	+1 45	+ 2.3
32	19 3989	9.0		72	9.7	+2 37	+12.5
33	19 3979	9.4	9.73	73	9.8	+1 18	- 1.0
34	19 3970	9.3	9.69	73	9.8	-1 14	-12.6
35	19 3980	9.3		74	9.9	+1 19	+24.0
36	19 3977	9.5	10.05	77	10.0	+1 0	- 9.4
37	19 3984	9.3		80	10.2	+1 58	+ 6.1
38	19 3983	9.5		82	10.2	+1 47	+22.8
39	+18 4027	9.5	10.36	84	10.4	-0 12	-23.5

\* PD., W, 6<sup>M</sup>.96.\*\* AGC. 7<sup>M</sup>.5 & 9<sup>M</sup>.2;  $\Sigma$  2504.



6943

## T Sagittae

19<sup>h</sup> 15<sup>m</sup> 14<sup>s</sup> (1855.0) +17° 23'.8\*Periodus = 165<sup>d</sup>?

Num.	BD.		HP.	Gradus		Magn.	$\Delta\alpha$	$\Delta\delta$	Notae
1	+16°	3839	5 <sup>M</sup> .8	6 <sup>M</sup> .03	0	6 <sup>M</sup> .0	+2 <sup>m</sup> 38 <sup>s</sup>	-44'.1	PD. GW, 6 <sup>M</sup> .2, 2 Sagittae „ GW, 7.1, 3 „ „ GW, 7.3 „ W, 7.3 „ GW, 7.6
2	16	3842	6.7	6.86	16	6.8	+3 1	-43.0	
3	16	3812	6.6	6.92	19	6.9	-2 59	-80.3	
4	17	3943	7.0	6.84	22	6.9	+0 22	+ 5.1	
5	16	3809	7.2	7.18	31	7.2	-3 13	-57.7	
6	17	3949	7.9	8.15	0 37	8.1	+2 23	+20.7	dpl.
7	18	4063	8.3		5 43	8.2	+3 23	+58.5	
8	16	3819	8.5		15 50	8.5	-1 17	-49.4	
9	17	3923	8.8		19 54	8.7	-2 54	-12.2	
10	17	3925	8.3	8.68	19 54	8.7	-2 49	+25.0	
11	16	3829	8.4		19 55	8.7	+0 28	-60.4	
12	17	3924	8.5		19 58	8.8	-2 53	- 3.3	
13	17	3928	8.8		19 59	8.8	-2 11	+26.5	
14	17	3930	8.6	9.02	24 64	9.0	-1 7	-23.5	
15	17	3938	9.0	9.32	28 70	9.2	-0 15	+ 4.3	
16	17	3935	9.1	9.31	30 73	9.3	-0 35	+11.8	
17	16	3835	9.1		38 76	9.5	+1 52	-29.2	
18	17	3937	9.4	9.80	50 83	9.8	-0 24	-16.0	
19	17	3942	9.4	9.70	47 84	9.8	+0 13	+17.6	
20	17	3932	9.4		56 87	10.1	-0 56	-23.8	
21	17	3929	9.5		64 89	10.3	-1 9	+ 4.1	
22	17	3941	9.5	10.63	69 91	10.4	+0 2	- 4.0	
23	17	3944	9.5		71 92	10.5	+1 19	-20.2	
24	17	3936	9.5		71 92	10.5	-0 29	+18.3	
25					74 93	10.6	+0 3	- 6.0	
26					78 94	10.7	-1 4	-20.6	
27					79 95	10.7	-0 15	-13.9	
28					79 96	10.8	+1 34	-14.9	
29					79 97	10.8	-0 47	+14.9	
30					84 98	10.9	-0 2	- 8.3	
31	+17	3931	9.5		84 98	10.9	-0 57	-18.5	

\* Declinatio anno 1900.0 est + 17° 28'.7, qui numerus verior est quam qui scriptus est in Charta.

6974

## RR Lyrae

 $19^{\text{h}} 20^{\text{m}} 51^{\text{s}}$  (1855.0)  $+ 42^{\circ} 30'.3$ Max. =  $2414856^{\text{d}}500 + 0^{\text{d}}5668 \text{ E.}$ 

Num.	BD.		HP.	Gradus	Magn.	$\Delta\alpha$	$\Delta\delta$	Notae
1	+43° 3229	5. <sup>M</sup> 6	5. <sup>M</sup> 95		5. <sup>M</sup> 9	-1 <sup>m</sup> 30 <sup>s</sup>	+36'.1	PD. WG+, 5. <sup>M</sup> 9
2	42 3325	6.5	6.90	0	6.8	-2 28	+11.3	„ W+, 7.2
3	42 3315	6.5	6.90	2	6.9	-4 26	- 5.5	„ WG, 7.2
4	41 3352	7.5	7.48	18	7.5	+1 52	-33.9	„ GW, 7.7
5	43 3215	7.5	7.69	22	7.7	-5 35	+46.7	„ WG-, 7.9
6	42 3351	8.4	7.80	26	7.8	+2 27	- 1.5	
7	42 3340	7.6	7.83	30	8.0	+0 34	-28.0	
8	43 3231	8.2		31	8.0	-0 37	+44.0	
9	43 3267	7.9		32	8.0	+5 31	+62.5	
10	43 3236	8.5		35	8.2	-0 15	+52.2	
11	42 3359	8.0	8.48	38	8.3	+3 49	- 9.5	
12	42 3357	8.3		41	8.4	+3 33	+22.5	
13	42 3331	8.6	8.37	43	8.4	-1 10	+ 8.1	
14	42 3352	8.3	8.59	45	8.5	+2 34	+22.9	
15	43 3256	8.5		47	8.6	+3 39	+49.1	
16	41 3364	8.5		47	8.6	+3 48	-42.3	
17	41 3346	8.2		49	8.6	+0 47	-55.2	
18	41 3345	8.4		55	8.8	+0 17	-59.2	
19	42 3320	8.8		58	9.0	-2 54	-20.9	
20	42 3353	8.5		59	9.0	+2 44	+ 4.0	
21	42 3347	9.0		59	9.0	+1 54	-16.9	
22	42 3348	9.0		62	9.1	+1 55	+17.3	
23	42 3328	8.9	8.98	62	9.1	-1 25	+27.7	
24	43 3249	9.1		63	9.1	+2 11	+33.0	
25	42 3345	9.0	9.08	66	9.2	+1 45	+19.6	
26	42 3350	8.8		67	9.2	+2 25	+10.6	
27	42 3336	8.6	8.99	71	9.4	-0 19	-20.4	
28	42 3333	9.1		75	9.5	-0 48	-10.6	
29	42 3342	9.2	9.35	75	9.5	+0 57	+16.9	
30	42 3341	9.2		79	9.7	+0 44	+20.1	
31	42 3334	9.4	9.81	81	9.8	-0 27	- 5.0	
32	42 3354	9.5		81	9.8	+2 54	+29.3	
33	42 3327	9.2		81	9.8	-1 40	+26.6	
34	42 3324	9.4		83	9.8	-2 27	-23.6	
35	+42 3349	9.4		83	9.8	+2 23	-24.8	

Num.	BD.		HP.	Gradus	Magn.	$\Delta\alpha$	$\Delta\delta$	Notae
36	+42° 3335	9 <sup>M</sup> .5	10 <sup>M</sup> .07	86	9 <sup>M</sup> .9	-0 <sup>m</sup> 23 <sup>s</sup>	+ 5'.7	
37	42 3323	9.5		86	9.9	-2 29	-26.1	
38	42 3337	9.5	9.86	86	9.9	-0 4	+ 9.5	
39	42 3346	9.5		87	9.9	+1 46	+27.5	
40	42 3326	9.2		88	10.0	-2 19	-27.3	
41	42 3332	9.4		89	10.0	-0 51	-27.1	
42	42 3321	9.5		89	10.0	-2 39	+27.0	
43	42 3344	9.3	10.16	90	10.1	+1 42	-27.6	
44	42 3329	9.5		92	10.1	-1 18	-11.1	
45	42 3339	9.5		94	10.2	+0 24	- 4.3	
46	42 3343	9.5		95	10.2	+1 22	- 1.1	
47	42 3322	9.5		96	10.2	-2 36	+19.4	
48	+42 3330	9.5		102	10.4	-1 11	+18.1	
UV	Cygni	var.				+5 46	+50.0	Ch. 7008 Seriei IV <sup>ae</sup>

7008

## UV Cygni

19<sup>h</sup> 26<sup>m</sup> 38<sup>s</sup> (1855.0) + 43° 19'.9

Variatio ignota.

Num.	BD.		HP.	Gradus	Magn.	$\Delta\alpha$	$\Delta\delta$	Notae
1	+43° 3229	5 <sup>M</sup> .6	5 <sup>M</sup> .95		5 <sup>M</sup> .9	- 7 <sup>m</sup> 16 <sup>s</sup>	-14'.0	PD. WG+, 5 <sup>M</sup> .9
2	43 3303	6.9	6.72		6.7	+ 5 18	+ 3.4	„ G, 6.8
3	43 3290	6.8	6.68		6.7	+ 3 31	+18.0	„ W+, 6.9
4	42 3372	6.8	7.16	0	7.3	+ 0 2	-39.1	„ WG-, 7.2
5	43 3279	8.3	7.68	8	7.5	+ 1 34	-12.6	
6	44 3154	7.7		14	7.6	- 1 12	+63.3	
7	42 3367	8.1		14	7.6	- 0 34	-35.9	
8	43 3282	7.5	8.06	17	7.7	+ 2 33	- 7.6	„ GW, 8.1
9	42 3398	8.2		21	7.8	+ 5 53	-23.7	
10	42 3351	8.4		22	7.8	- 3 20	-51.6	
11	43 3231	8.2		24	7.9	- 6 24	- 6.1	
12	43 3267	7.9	8.26	27	8.0	- 0 15	+12.5	
13	42 3377	7.8		28	8.0	+ 1 56	-50.1	
14	42 3364	8.0	8.07	32	8.2	- 0 45	-28.1	
15	44 3146	8.2		35	8.2	- 2 35	+62.5	
16	43 3236	8.5		35	8.2	- 6 1	+ 2.2	
17	43 3281	8.7		(36)	8.3	+ 1 52	+ 2.7	var.? *
18	42 3359	8.0		39	8.4	- 1 58	-59.5	
19	42 3357	8.3		40	8.4	- 2 14	-27.5	
20	44 3157	8.2		40	8.4	- 0 41	+42.5	
21	42 3352	8.3		41	8.5	- 3 12	-27.1	
22	43 3259	8.7		42	8.5	- 1 31	+25.3	
23	43 3270	8.7	8.63	44	8.6	+ 0 17	+19.3	
24	43 3278	8.6		46	8.6	+ 1 31	+33.1	
25	43 3277	8.7		48	8.7	+ 1 25	-12.3	
26	43 3256	8.5		48	8.7	- 2 7	- 0.9	
27	42 3361	8.6		52	8.8	- 1 17	-26.2	
28	42 3365	8.9		56	9.0	- 0 41	-40.0	
29	43 3257	9.0		57	9.0	- 1 55	- 8.5	
30	42 3353	8.5		59	9.1	- 3 3	-46.0	
31	42 3350	8.8		62	9.2	- 3 21	-39.5	
32	43 3271	9.1	9.34	65	9.3	+ 0 18	+27.1	dpl.
33	43 3265	9.2		70	9.5	- 0 31	+15.1	
34	43 3276	9.3		71	9.6	+ 1 18	+20.0	
35	+43 3280	8.9		72	9.6	+ 1 41	+14.2	

Num.	BD.		HP.	Gradus	Magn.	$\Delta\alpha$	$\Delta\delta$	Notae
36	+43° 3266	9. <sup>M</sup> 3	9. <sup>M</sup> 59	76	9. <sup>M</sup> 8	-0 <sup>m</sup> 30 <sup>s</sup>	-14'.9	
37	43 3264	9.2	9.92	77	9.9	-0 35	-10.2	
38	43 3274	9.3		77	9.9	+1 6	- 8.8	
39	43 3258	9.3		78	9.9	-1 50	-19.3	
40	43 3275	9.3		79	10.0	+1 16	+24.2	
41	42 3354	9.5		82	10.1	-2 53	-20.7	
42	43 3252	9.4		84	10.2	-2 15	-16.6	
43	43 3269	9.5	10.37	84	10.2	+0 13	+14.0	
44	42 3363	9.4	10.10	85	10.2	-0 49	-20.0	
45	43 3263	9.5		88	10.4	-0 44	+22.6	dpl.
46	43 3260	9.5		88	10.4	-1 2	+13.8	
47	43 3283	9.5		89	10.4	+2 44	+28.9	
48	43 3254	9.5		90	10.5	-2 14	+24.0	
49	42 3371	9.5	10.78	90	10.5	-0 11	-20.4	
50				91	10.5	-1 10	+19.8	
51				91	10.5	+0 26	- 1.2	
52				92	10.6	+0 16	- 1.0	
53	43 3253	9.5		94	10.7	-2 16	+21.9	
54				97	10.8	+0 10	- 2.5	
55	43 3251	9.5		97	10.8	-2 51	+14.2	dpl.
56	+43 3255	9.5		103	11.1	-2 9	+ 6.7	
RR	Iyrae	var.				-5 46	-50.0	Ch. 6974 Seriei IV <sup>ae</sup> .

\* Gradus: 27 et 45, Jun. 26 et Jul. 16, 1904.

## U Vulpeculae

19<sup>h</sup> 30<sup>m</sup> 17<sup>s</sup> (1855.0) + 20° 0'.8Max. = 2 414 200<sup>d</sup>31 + 7<sup>d</sup>97997 E.

Num.	BD.		HP.	Gradus	Magn.	$\Delta\alpha$	$\Delta\delta$	Notae
1	+19° 4063	5 <sup>M</sup> .8	4 <sup>M</sup> 88		4 <sup>M</sup> .9	-2 <sup>m</sup> 4 <sup>s</sup>	-33'.3	PD. W, 5 <sup>M</sup> .2, 9 Vulpec.
2	20 4210	6.7	6.50		6.5	+1 41	+26.8	„ WG, 6.7
3	20 4218	6.7	6.44		6.5	+3 51	+ 8.1	„ GW, 6.9
4	20 4175	7.0	6.80	0	7.0	-4 34	+36.4	„ GW-, 7.2
5	21 3863	7.5	7.45	4	7.1	+2 55	+60.2	„ G, 7.5
6	20 4179	7.8	7.24	9	7.2	-3 20	+ 5.2	
7	20 4178	7.8		19	7.5	-3 35	+40.7	
8	19 4080	8.1		24	7.6	+0 10	-52.1	
9	19 4111	7.9		28	7.8	+3 15	-56.4	
10	19 4090	7.9		34	8.0	+1 15	-58.7	AGC. dpl. 7"
11	20 4215	7.8	8.17	34	8.0	+3 1	+26.6	
12	20 4193	8.3	8.24	36	8.0	-1 5	+29.5	
13	20 4216	8.4	8.83	39	8.1	+3 6	+ 3.8	
14	19 4081	8.7		42	8.2	+0 17	-52.1	
15	19 4092	8.1		43	8.3	+1 46	-28.3	
16	20 4201	8.7		48	8.4	0 0	+33.2	
17	20 4194	8.5		48	8.4	-1 0	+50.0	
18	19 4066	8.3		50	8.5	-1 46	-16.5	
19	20 4191	8.7		54	8.6	-1 7	+33.4	
20	19 4067	8.4	8.94	57	8.8	-1 47	- 5.2	
21	19 4089	8.9	9.14	62	9.0	+1 15	-22.0	
22	19 4075	9.0	9.30	65	9.1	-0 37	-17.9	
23	19 4084	9.0	9.37	69	9.3	+0 27	- 2.8	
24	20 4195	9.0	9.30	69	9.3	-0 47	+10.8	
25	20 4189	9.0		69	9.3	-1 36	+15.8	
26	20 4196	9.2	9.42	72	9.4	-0 41	+29.2	
27	20 4192	9.5		72	9.4	-1 4	+11.3	
28	20 4204	9.2	9.69	74	9.5	+0 24	+11.2	
29	20 4190	8.7	9.48	76	9.6	-1 14	+ 1.5	
30	19 4078	9.2		77	9.6	-0 10	-17.6	
31	19 4074	9.5		81	9.9	-0 53	-21.6	
32	19 4082	9.5	10.36	85	10.1	+0 16	-11.2	
33				89	10.3	-0 26	-21.6	
34	20 4209	9.5		89	10.3	+1 40	+ 7.7	
35	19 4088	9.5		96	10.8	+1 9	-15.1	
36	19 4064	9.5		96	10.8	-1 53	- 3.3	
37	20 4211	9.5		97	10.9	+1 42	+ 9.7	
38				98	11.0	+0 45	0.0	
39	19 4087	9.5		100	11.1	+0 56	- 0.7	
40				100	11.1	+1 4	-11.9	
	+19 4079	9.5				0 0	-11.2	13 <sup>1</sup> / <sub>2</sub> <sup>M</sup> (annis 1904 & 1905)

7063

## TT Cygni

19<sup>h</sup> 35<sup>m</sup> 24<sup>s</sup> (1855.0) + 32° 17'. 0

Variatio ignota.

Num.	BD.		HP.	Gradus	Magn.	$\Delta\alpha$	$\Delta\delta$	Notae
1	+33° 3587	5 <sup>M</sup> .4	5 <sup>M</sup> .03		5 <sup>M</sup> .0	+5 <sup>m</sup> 31 <sup>s</sup>	+66'.8	PD. WG-, 5 <sup>M</sup> .1, 17 Cygni*
2	32 3531	6.0	5.89		5.9	+1 47	-11.7	„ GW, 6.2
3	32 3558	6.5	6.18		6.2	+5 38	+15.5	„ G, 6.3 dpl.
4	33 3507	7.5	6.73		6.7	-5 56	+71.4	„ G, 6.8
5	32 3526	7.0	6.97	0	7.0	+0 44	+27.8	„ W, 7.3
6	33 3518	7.9		8	7.2	-4 37	+51.2	
7	33 3516	8.1		(8)	7.2	-4 47	+68.4	
8	32 3506	7.5	7.26	10	7.3	-2 18	-12.4	„ W+, 7.4
9	31 3765	7.2	7.43	13	7.4	+5 16	-30.8	„ GW, 7.6
10	33 3582	8.4		15	7.5	+4 38	+59.3	
11	33 3539	7.8		18	7.6	-2 5	+44.0	
12	31 3687	7.8		18	7.6	-3 44	-42.6	
13	31 3694	7.5	7.76	21	7.7	-2 41	-51.2	„ WG-, 7.8
14	31 3738	7.8	7.64	24	7.8	+2 41	-32.7	
15	32 3509	7.9	7.98	26	7.8	-1 59	- 3.1	
16	33 3509	8.4		27	7.9	-5 48	+57.0	
17	32 3553	8.4		28	7.9	+4 44	+ 5.2	
18	31 3713	7.6		29	8.0	-0 47	-33.7	
19	31 3688	8.2		30	8.0	-3 30	-41.2	
20	31 3718	8.4	8.43	32	8.1	-0 12	-24.7	
21	31 3691	8.1		33	8.1	-3 13	-51.5	
22	32 3512	8.2	8.30	36	8.3	-1 53	+28.6	
23	33 3577	8.7		38	8.3	+3 53	+54.6	
24	31 3700	8.2		38	8.3	-2 9	-46.7	
25	31 3727	8.3		42	8.4	+1 29	-52.4	
26	31 3735	8.2		42	8.4	+2 25	-39.4	
27	32 3486	8.2		44	8.5	-5 24	-13.8	
28	33 3550	8.5		44	8.5	-0 49	+44.3	
29	32 3511	8.7	8.72	48	8.7	-1 54	+ 8.7	
30	32 3519	9.0	9.08	55	9.0	-0 25	+13.7	
31	31 3685	8.5		56	9.0	-3 55	-33.2	
32	32 3533	9.0		57	9.1	+1 53	+17.0	
33	32 3508	9.1		58	9.1	-2 5	+ 4.9	
34	32 3543	9.1		60	9.2	+3 29	+11.6	
35	+32 3520	9.3	9.22	64	9.3	-0 16	+ 3.7	

7085

## RT Cygni

 $19^{\text{h}} 39^{\text{m}} 31^{\text{s}}$  (1855.0)  $+48^{\circ} 25'.9$ Max. =  $2410514^{\text{d}} + 190^{\text{d}}5 \text{ E.}$ 

Num.	BD.		HP.	Gradus		Magn.	$\Delta\alpha$	$\Delta\delta$	Notae
1	+47°	2916	5. <sup>M</sup> 8	6. <sup>M</sup> 24	0	6. <sup>M</sup> 1	+3 <sup>m</sup> 44 <sup>s</sup>	-52'.6	PD. G-, 6. <sup>M</sup> 2, (g)
2	48	2922	6.6	6.50	15	6.5	-5 38	+30.9	„ WG, 6.7
3	49	3101	6.5	6.67	21	6.7	+3 0	+73.6	„ WG+, 6.9
4	49	3092	7.5	7.64	0 44	7.5	+0 24	+60.3	„ WG, 7.5
5	48	2934	7.8		8 54	7.8	-2 53	-15.6	
6	49	3082	7.7		11 59	7.9	-1 57	+55.3	
7	48	2933	8.2		16 63	8.0	-3 15	+11.1	
8	48	2959	7.8		19 66	8.1	+6 31	-24.0	
9	49	3083	8.2		22 71	8.2	-1 40	+72.9	
10	48	2943	8.0	8.39	26 72	8.3	+0 2	+ 9.2	
11	48	2939	8.2		29 74	8.4	-0 50	-20.4	
12	48	2956	8.5		32 81	8.5	+4 45	+26.8	
13	48	2949	8.7	8.54	34 82	8.5	+2 50	-19.8	
14	48	2941	8.0	8.67	37 86	8.6	-0 9	-11.1	
15	49	3084	8.8		42 90	8.8	-1 29	+35.0	
16	48	2950	8.6	8.71	44 90	8.8	+3 23	+ 8.8	
17	47	2890	8.5		45 92	8.8	-4 15	-45.0	
18	47	2901	8.5		53 105	9.1	-1 47	-32.1	
19	48	2935	9.4		57 112	9.3	-2 20	+ 8.3	
20	48	2944	9.3		59 112	9.3	+1 2	+33.7	
21	48	2938	9.2	9.31	61 114	9.3	-0 59	-14.7	dpl.
22					66 119	9.5	-0 3	+ 3.1	
23					70 115	9.5	+1 43	+ 2.4	
24					72 116	9.5	+3 0	+22.1	
25					75 122	9.7	+1 26	+ 2.9	
26					79 123	9.7	+1 52	+22.1	
27	48	2940	9.3	9.84	79 125	9.8	-0 37	+24.9	
28	48	2945	9.4	9.76	83 129	9.9	+1 5	+22.1	
29	47	2911	9.5		85 129	9.9	+2 4	-26.3	
30	+48	2946	9.4		89 131	10.0	+2 22	- 5.6	
31					93 134	10.1	+2 31	+11.6	
32					93 134	10.1	-0 10	+ 9.8	
33					93 136	10.1	+2 36	-21.7	*
34					96 137	10.2	+2 53	-11.9	
35					99 137	10.2	+2 25	-20.5	*



Num.	BD.		HP.	Gradus		Magn.	$\Delta\alpha$	$\Delta\delta$	Notae	
36	+48° 2947	9 <sup>M</sup> .5	10 <sup>M</sup> .43	102	138	10 <sup>M</sup> .3	+2 <sup>m</sup> 25 <sup>s</sup>	-11'.1	dpl.	
37				102	138	10.3	+2 27	+21.0		
38	+48 2936	9.5		102	140	10.3	-1 31	- 6.0		
39				104	141	10.3	+2 50	+ 4.2		
40				106	143	10.4	+2 30	+29.3		
41				106	143	10.4	+0 14	+ 1.5		
42				109	146	10.5	+2 40	+26.7		
43				112	149	10.6	+0 7	+ 0.1		
44				129	159	11.0	+0 2	+ 0.4		
TU	Cygni	var.					+2 34	+17.8		Ch. 7100, $8\frac{1}{2}^M - < 13^{M**}$
R	Cygni	var.					-6 39	+86.2		Ch. 7045 Seriei III <sup>ae</sup>

\*  $BD + 48^\circ 2948 = \frac{1}{2}(33 + 35)$ .

\*\* Primo cognita a P. Hisgen occasione huius Chartae conficiendae.

7085 a

## SU Cygni

19<sup>h</sup> 39<sup>m</sup> 0<sup>s</sup> (1855.0) + 28° 55'.0Max. = 1897, Octob. 4<sup>d</sup>66 + 3<sup>d</sup>846 E.

Num.	BD.		HP.	Gradus	Magn.	$\Delta\alpha$	$\Delta\delta$	Notae
1	+29° 3684	5 <sup>M</sup> .3	4 <sup>M</sup> .79		4 <sup>M</sup> .8	-5 <sup>m</sup> 23 <sup>s</sup>	+54'.0	PD. WG-, 4 <sup>M</sup> .8, $\varphi$ Cygni
2	30 3706	6.2	6.06	0	6.1	-1 35	+85.0	„ W+, 6.3
3	28 3493	6.8	6.29	5	6.3	+5 3	-50.2	„ W, 6.7
4	28 3447	7.2	6.44	8	6.4	-2 0	+ 4.2	„ GW-, 6.8
5	27 3523	7.0	7.06	15	6.8	+4 14	-92.1	„ GW, 7.2
6	29 3754	7.7		18	6.9	+3 53	+ 7.8	
7	29 3710	7.3	7.14	21	7.1	-1 31	+58.3	„ GW-, 7.5
8	29 3730	8.3	7.66	25	7.3	+0 57	+59.4	
9	29 3702	8.0		29	7.4	-2 35	+14.2	
10	28 3486	8.0		31	7.5	+4 28	-41.7	
11	28 3488	8.4		36	7.7	+4 35	-40.0	
12	27 3518	8.4		38	7.9	+3 20	-56.7	
13	28 3445	8.4		43	8.0	-2 15	-54.7	
14	28 3478	8.3		45	8.1	+2 37	-47.0	
15	29 3724	8.1	8.06	46	8.2	+0 17	+19.9	
16	29 3740	8.4		47	8.2	+2 3	+16.0	
17	29 3733	8.5		49	8.3	+1 18	+28.9	
18	28 3490	8.5		49	8.3	+4 42	- 1.4	
19	29 3760	8.3		49	8.3	+4 42	+ 5.9	
20	28 3472	8.7	8.26	51	8.4	+1 29	-21.4	
21	29 3721	8.2	8.28	52	8.4	-0 2	+29.9	
22	27 3490	8.5		54	8.5	-1 0	-55.3	
23	29 3752	9.0		54	8.5	+3 43	+ 8.3	
24	28 3449	8.8		55	8.5	-1 46	-21.7	
25	27 3507	8.7		56	8.6	+1 7	-56.3	
26	29 3738	8.8		57	8.6	+1 55	+11.3	
27	29 3722	8.6	8.70	59	8.7	+0 12	+29.8	
28	29 3734	9.0	9.13	66	9.0	+1 28	+ 7.0	
29	28 3467	9.1	9.04	68	9.1	+1 3	- 6.2	
30	28 3457	9.1	9.02	69	9.2	-0 25	- 8.6	
31	28 3475	9.3		70	9.2	+1 47	-17.6	
32	28 3453	9.4	9.33	70	9.2	-0 50	- 9.2	
33	29 3706	9.5		70	9.2	-1 53	+ 5.9	
34	28 3469	9.2		71	9.3	+1 14	- 4.2	
35	+28 3468	9.3		74	9.4	+1 4	-17.3	

Num.	BD.		HP.	Gradus	Magn.	$\Delta\alpha$	$\Delta\delta$	Notae
36	+29° 3708	9 <sup>M</sup> .4		74	9 <sup>M</sup> .4	-1 <sup>m</sup> 46 <sup>s</sup>	+24'.8	dpl.
37	29 3719	9.3		74	9.4	-0 11	+25.7	
38	29 3711	9.3		76	9.5	-1 18	+22.9	
39	28 3470	9.3		76	9.5	+1 21	+ 0.9	
40	29 3712	9.4		76	9.5	-1 14	+ 7.4	
41	29 3725	9.5		79	9.6	+0 28	+22.9	
42	28 3459	9.5		81	9.8	-0 10	-26.3	
43	29 3735	9.5		83	9.9	+1 28	+ 8.4	
44	28 3471	9.5		84	9.9	+1 28	-11.4	
45	28 3463	9.5	9 <sup>M</sup> .72	84	9.9	+0 28	-10.3	
46	28 3451	9.3	9.96	85	10.0	-1 18	- 0.7	AGC. Cambr. 10384 } AGC. „ 10398 } *
47	28 3455	9.5		87	10.0	-0 35	-23.7	
48	28 3456	9.5		88	10.1	-0 26	-11.9	
49	28 3452	9.5	10.26	92	10.3	-0 59	- 4.2	
50	28 3462	9.5		94	10.4	+0 22	-16.2	
51	+29 3707	9.5		97	10.5	-1 46	+19.2	
52		(9.4)		101	10.7	+1 9	+ 2.1	
53		(9.4)		104	10.8	+1 47	- 3.9	

\* AGC. Cambr. 10370, 9<sup>M</sup>.5 (+0<sup>m</sup> 35<sup>s</sup>, +29'.2) non visa 1904, 1905.

7106

## S Vulpeculae

 $19^{\text{h}} 42^{\text{m}} 27^{\text{s}}$  (1855.0)  $+26^{\circ} 55'.7$ 
 $\text{Max.} = 2\,402\,239^{\text{d}} + 67^{\text{d}}.5 \text{ E (Inaequalitas periodica).}$ 

Num.	BD.		HP.	Gradus		Magn.	$\Delta\alpha$	$\Delta\delta$	Notae
1	+26° 3654	6 <sup>M</sup> .8	6 <sup>M</sup> .56	0		6 <sup>M</sup> .4	-4 <sup>m</sup> 28 <sup>s</sup>	- 8'.5	PD. WG+, 6 <sup>M</sup> .4
2	28 3493	6.8	6.29	5		6.6	+1 34	+69.0	„ W, 6.7
3	26 3678	7.0	6.52	5	0	6.6	+1 31	-12.3	„ WG, 6.7, (rg)
4	27 3543	7.1	7.00	9	4	6.8	+3 54	+57.5	„ WG, 7.0, (rg)
5	27 3516	7.2	6.75	12	7	6.9	-0 21	+34.6	„ GW, 7.1
6	27 3523	7.0	7.06	14	10	7.0	+0 45	+27.1	„ GW, 7.2
7	27 3536	7.9	7.53	17	18	7.3	+3 7	+10.0	(rg)
8	27 3517	7.5	7.34	26	22	7.5	-0 18	+25.0	„ GW-, 7.8
9	26 3684	8.5	7.82	28	26	7.6	+2 2	-35.6	(r)
10	26 3679	8.1	7.91	29	30	7.7	+1 36	- 7.4	
11	27 3534	7.8		32	30	7.8	+2 42	+25.5	
12	26 3688	8.5	8.16	34	40	8.0	+2 36	-28.8	
13	27 3539	8.5		36	47	8.1	+3 42	+48.5	
14	27 3513	8.5		39	49	8.2	-1 23	+45.7	
15	27 3532	8.8		42	53	8.3	+2 24	+23.8	
16	27 3522	8.0		42	53	8.3	+0 43	+53.8	
17	26 3694	8.6		47	56	8.5	+3 26	-53.9	(rg)
18	25 3968	8.4		48	57	8.5	-0 49	-60.2	
19	27 3531	8.8		48	57	8.5	+2 1	+41.4	
20	27 3542	8.6		52	59	8.6	+3 49	+ 9.3	
21	26 3699	9.0		54	60	8.7	+3 54	-33.9	
22	27 3541	8.6		54	64	8.7	+3 49	+ 8.8	
23	26 3662	8.9		54	64	8.7	-2 35	-38.9	
24	27 3528	8.9		54	64	8.7	+1 2	+56.4	
25	26 3689	8.9		57	67	8.8	+2 49	-43.1	dpl.
26	27 3535	9.0		57	67	8.8	+3 4	+27.4	
27	27 3512	8.8		58	68	8.9	-1 42	+57.7	
28	26 3669	9.0	8.71	59	73	8.9	-1 28	-34.5	
29	26 3665	9.1		61	71	8.9	-1 48	- 7.4	
30	26 3691	9.1		62	72	9.0	+2 53	-42.5	
31	26 3658	9.0		63	72	9.0	-3 32	- 3.3	
32	27 3508	8.8		66	73	9.1	-2 21	+57.1	
33	26 3659	9.3		66	74	9.1	-3 11	-23.1	
34	26 3698	8.9		67	75	9.1	+3 51	-10.5	
35	+26 3660	9.3		67	77	9.1	-2 38	-12.6	

Num.	BD.		HP.	Gradus		Magn.	$\Delta\alpha$	$\Delta\delta$	Notae
36	+27° 3510	9 <sup>M</sup> .0	9 <sup>M</sup> .25	69	83	9 <sup>M</sup> .3	-2 <sup>m</sup> 15 <sup>s</sup>	+32.5	
37	26 3671	9.2		73	81	9.3	-0 22	-23.0	
38	27 3515	9.0		73	85	9.3	-0 59	+34.2	
39	27 3530	9.2		73	87	9.4	+1 36	+24.2	
40	26 3677	9.3		73	88	9.4	+1 21	-23.1	
41	27 3526	9.1	9.36	73	93	9.4	+0 54	+ 8.4	
42	25 3987	8.9		75	88	9.4	+1 2	-57.4	
43	26 3670	9.3		79	89	9.5	-1 26	-23.7	
44	26 3675	9.4		82	92	9.6	+0 9	-22.5	
45	26 3666	9.5		82	94	9.6	-1 48	- 5.0	
46	27 3505	9.0	9.74	83	97	9.7	-2 58	+50.3	
47	26 3681	9.4		84	99	9.7	+1 53	- 8.6	
48	27 3520	9.5		86	99	9.8	+0 10	+16.3	
49				91	101	9.9	-0 59	- 8.1	
50	26 3668	9.4		91	101	9.9	-1 33	-25.8	
51	26 3683	9.5	10.04	91	104	9.9	+2 0	-12.6	
52	26 3672	9.5	9.70	92	105	9.9	-0 14	+ 4.1	
53				93	107	10.0	+0 18	+14.6	
54				97	107	10.0	+0 39	-20.6	
55				101	115	10.2	-0 57	-22.8	
56				102	115	10.2	-1 22	+13.9	dpl.
57				104	116	10.2	-1 15	-16.8	
58				107	119	10.3	-1 0	-19.6	
59	+27 3514	9.5		107	121	10.4	-1 2	+ 8.5	dpl.
60				107	123	10.4	+1 30	- 5.1	
61				109	126	10.5	-1 0	-11.7	
62				113	129	10.6	-0 32	+ 6.9	
Nova	Vulpeculae						-0 50	+ 2.0	1670: 3 <sup>M</sup> ; Fl. 11.

7235

## W Vulpeculae

20<sup>h</sup> 3<sup>m</sup> 59<sup>s</sup> (1855.0) +25° 51'.6

Variatio irregularis?

Num.	BD.		HP.	Gradus	Magn.	$\Delta\alpha$	$\Delta\delta$	Notae
1	+26°	3825	5 <sup>M</sup> .8	5 <sup>M</sup> .77	(5 <sup>M</sup> .6)	+1 <sup>m</sup> 45 <sup>s</sup>	+31'.2	PD. G, 5 <sup>M</sup> .6, 19 Vulp.
2	26	3815	5.7	5.46	(5.7)	+0.30	+37.0	„ W+, 5.7, 18 „
3	26	3828	6.2	5.91	5.9	+1.56	+11.4	„ W, 6.2, 20 „
4	26	3826	6.5	7.10	7.1	+1.48	+36.4	„ W+, 7.7
5	26	3827	7.2	7.56	0	+1.54	+27.3	„ GW-, 8.1
6	25	4149	7.5	7.36	1	+2.27	-38.5	„ GW, 7.8
7	26	3831	7.9		7	+2.56	+59.6	
8	26	3811	8.1		11	-0.14	+62.8	
9	25	4124	7.8	7.86	12	-0.9	-45.0	
10	26	3803	8.0		14	-1.43	+55.4	
11	25	4116	7.8	7.69	15	-1.21	-0.5	
12	25	4097	7.8		17	-4.15	-40.5	
13	25	4113	8.1	8.13	21	-1.46	+4.1	
14	25	4103	8.5		23	-3.20	-35.6	
15	26	3816	8.2		27	+0.52	+62.4	
16	25	4099	8.2	8.11	27	-3.55	-49.1	
17	25	4140	8.6	8.61	30	+1.17	-50.0	
18	25	4105	8.2		32	-2.50	-5.9	
19	26	3808	8.7		35	-0.55	+55.6	
20	26	3835	8.7		35	+3.43	+27.4	
21	25	4154	8.8	8.51	35	+3.9	-46.2	
22	25	4150	8.8		37	+2.29	-26.4	
23	25	4138	8.9		39	+1.11	-8.8	
24	24	4017	8.6	8.86	41	-1.12	-56.7	
25	24	4027	8.6	8.86	43	+0.9	-54.7	
26	25	4115	8.8		43	-1.27	-21.0	
27	26	3799	8.8		44	-2.16	+29.2	
28	25	4111	8.8		46	-1.58	-21.7	
29	25	4144	9.0		47	+1.28	+5.8	
30	25	4141	9.0	8.85	49	+1.19	+7.5	dpl.
31	25	4146	9.0		52	+1.49	+4.9	
32	25	4151	9.0		54	+2.35	-29.6	
33	25	4145	9.0		55	+1.48	+7.4	
34	25	4121	9.0	8.98	55	-0.42	-5.0	
35	+26	3814	9.0		57	+0.14	+17.0	

Num.	BD.		HP.	Gradus	Magn.	$\Delta\alpha$	$\Delta\delta$	Notae
36	+26° 3813	9. <sup>M</sup> 3		59	9. <sup>M</sup> 5	-0 <sup>m</sup> 3 <sup>s</sup>	+18'.9	
37	25 4118	9.4		60	9.6	-1 15	-28.7	
38	26 3822	9.4		62	9.7	+1 23	+ 8.6	
39	26 3824	9.5	(11. <sup>M</sup> 06)	62	9.7	+1 39	+17.7	*
40	25 4112	9.2		63	9.7	-1 53	-24.4	
41	26 3805	9.3		63	9.7	-1 16	+11.4	
42	25 4120	9.4	9.89	64	9.8	-0 45	-11.5	
43	25 4122	9.5		65	9.8	-0 37	-14.2	
44	25 4142	9.4		66	9.9	+1 26	+ 2.6	
45	25 4147	9.4		67	9.9	+1 52	-23.1	
46	26 3823	9.4	(11.24)	68	10.0	+1 27	+15.8	*
47	26 3812	9.5		70	10.1	-0 7	+27.8	
48	25 4128	9.5	10.43	73	10.2	+0 12	- 0.1	
49	25 4134	9.5		73	10.2	+0 33	- 0.3	
50	26 3819	9.4		74	10.3	+1 14	+14.0	
51	25 4132	9.5		76	10.4	+0 33	- 3.9	
52	25 4117	9.5		77	10.4	-1 16	+ 7.5	
53	25 4133	9.5		78	10.5	+0 34	- 8.7	
54	25 4129	9.4		79	10.5	+0 18	-24.4	
55	25 4123	9.5		81	10.7	-0 22	-16.6	
56			10.75	86	10.9	+0 8	-2. 2	
	+25 4119	9.5				-0 49	+ 1.5	multpl. AGC. 10904

\* Gradus Jul. 31 et Aug. 1, 1905; H P. Sept. 22 et 23, 1905.

7239

## SV Cygni

20<sup>h</sup> 5<sup>m</sup> 5<sup>s</sup> (1855.0) +47° 26'.7

Variatio irregularis.

Num.	BD.		HP.	Gradus	Magn.	$\Delta\alpha$	$\Delta\delta$	Notae
1	+46° 2882	4. <sup>M</sup> 0	3. <sup>M</sup> 95		4. <sup>M</sup> 0	+4 <sup>m</sup> 1 <sup>s</sup>	-68'.3	PD. G, 4. <sup>M</sup> 0, 31 Cygni
2	47 3059	5.0	4.16		4.2	+5 55	-10.2	„ G+, 4.2, 32 „
3	46 2881	5.0	4.96		5.0	+3 42	-63.8	„ W+, 5.0, 30 „
4	47 3004	6.2	5.98		6.0	-4 58	+22.1	„ W+, 6.3
5	47 3037	6.4	6.64		6.6	+1 5	+21.4	„ WG, 6.8
6	47 3045	7.5	6.60	0	6.8	+2 32	- 8.4	„ W, 7.1
7	46 2883	7.5	6.94	5	7.0	+4 3	-70.1	„ W, 7.4
8	47 3054	7.8	6.93	12	7.3	+5 12	-26.5	
9	48 3026	7.5	7.20	13	7.3	-3 44	+42.2	„ GW, 7.5
10	46 2839	8.1		17	7.5	-6 17	-51.5	
11	46 2843	8.0		20	7.6	-4 55	-61.9	
12	47 3022	8.0	7.72	20	7.6	-2 10	+19.4	
13	47 3053	8.0		20	7.6	+5 10	-10.4	
14	46 2870	8.0		24	7.7	+1 52	-57.5	
15	47 3061	8.3		26	7.8	+6 11	-16.2	
16	47 3025	8.1	8.21	26	7.8	-1 33	-19.3	
17	47 3038	8.5		27	7.8	+1 19	- 3.6	*
18	47 3011	8.0		30	7.9	-4 15	+28.3	
19	47 3060	8.9		33	8.0	+5 57	-13.7	
20	46 2868	8.4		33	8.0	+1 31	-45.2	
21	48 3071	8.5		33	8.1	+6 27	+34.0	
22	47 3049	8.3		39	8.3	+4 7	+16.5	
23	48 3062	8.3		43	8.3	+4 24	+62.6	
24	48 3029	8.7		46	8.4	-3 20	+42.7	
25	48 3027	8.4		50	8.4	-3 37	+39.4	
26	47 3002	8.8		54	8.5	-5 13	+30.1	
27	47 3008	8.9		56	8.6	-4 22	-18.8	} **
28	47 3013	8.9		57	8.6	-4 5	-22.0	
29	46 2845	8.6		59	8.7	-4 12	-39.2	
30	46 2854	8.5		60	8.7	-2 0	-43.4	
31	46 2872	8.5		66	8.8	+2 8	-49.2	
32	46 2871	8.8		68	8.9	+2 1	-45.2	
33	48 3069	8.6		70	9.0	+5 58	+38.7	
34	47 3007	8.8		72	9.0	-4 27	+30.5	
35	+47 3009	8.5		75	9.1	-4 18	+19.6	dpl.



Num.	BD.		HP.	Gradus	Magn.	$\Delta\alpha$	$\Delta\delta$	Notae
36	+47° 3036	9. <sup>M</sup> 0	9. <sup>M</sup> 30	78	9. <sup>M</sup> 2	+ 0 <sup>m</sup> 38 <sup>s</sup>	+18'.4	
37	47 3027	8.9	9.11	80	9.3	- 0 30	+19.9	
38	47 3042	9.0		82	9.4	+ 2 5	-12.6	
39	47 3041	9.1	9.27	84	9.4	+ 1 53	-24.6	
40	47 3019	9.4		87	9.5	- 2 42	-16.3	
41	47 3047	9.5		87	9.5	+ 2 57	- 6.6	
42	47 3024	9.0		89	9.6	- 1 33	+ 6.3	
43	47 3029	9.2	9.51	89	9.6	- 0 22	+26.5	
44	47 3026	9.4	9.70	92	9.7	- 0 54	+24.4	
45				94	9.7	- 2 51	- 1.8	
46	47 3021	9.5		95	9.7	- 2 20	- 3.9	
47	47 3034	9.5	9.90	95	9.7	+ 0 10	- 1.8	
48	46 2857	9.4		99	9.9	- 1 10	-29.5	
49	47 3043	9.4		99	9.9	+ 2 6	-26.2	
50	47 3046	9.5		101	10.0	+ 2 40	+10.7	
51				106	10.1	+ 1 56	+ 9.7	
52	47 3040	9.5		109	10.2	+ 1 48	+ 7.2	
53				110	10.2	+ 1 46	-15.2	
54	46 2869	9.4	10.14	111	10.3	+ 1 35	-27.7	
55	47 3020	9.5		114	10.4	- 2 31	+ 9.0	
56	47 3023	9.5		115	10.4	- 1 56	+ 8.6	
57	47 3039	9.4		115	10.4	+ 1 31	-25.6	
58	47 3028	9.5	10.69	116	10.4	- 0 27	-16.5	
59	47 3018	9.5		116	10.4	- 2 56	+23.8	
60	46 2853	9.5		118	10.5	- 2 2	-28.4	
61	47 3033	9.5		119	10.5	+ 0 6	-25.3	
	+47 3044	9.5				+ 2 16	-19.6	nunquam visa (1904)
U	Cygni	var.				+10 3	+ 0.1	Ch. 7299 Seriei IV <sup>ae</sup>

\* Designata Variabilis RX Cygni (Chandler, Cat. III, 7247).

\*\* In cumulo.

7242

## S Aquilae

 $20^h 4^m 57^s$  (1855.0)  $+15^\circ 11'.5$ Max. =  $2\ 402\ 553^d + 146^d.7$  E. (Phases secundariae).

Num.	BD.		HP.	Gradus		Magn.	$\Delta\alpha$	$\Delta\delta$	Notae
1	+14°	4227	5 <sup>M</sup> .0	4 <sup>M</sup> .96		5 <sup>M</sup> .0	+2 <sup>m</sup> 37 <sup>s</sup>	-25'.9	PD. W, 5 <sup>M</sup> .1, $\varphi$ Aquilae
2	15	4096	6.8	7.01	0 0	6.9	+1 58	+38.4	„ RG, 7.0
3	15	4081	6.7	7.14	4 3	7.0	+0 13	+15.3	„ G, 7.2
4	15	4087	7.0	7.42	13 15	7.3	+0 42	+35.7	„ G, 7.5
5	15	4074	7.0	7.26	16 19	7.4	-0 27	+33.2	„ GW, 7.5
6	14	4215	7.1	7.48	21 22	7.5	-0 2	-58.3	„ W, 7.9
7	15	4097	7.8	7.55	27 24	7.6	+2 9	+31.9	*
8	15	4089	7.3	7.57	35 28	7.7	+1 15	+28.3	„ GW, 8.0
9	14	4219	7.3	8.04	39 32	7.9	+0 26	-15.8	„ W, 8.1
10	15	4057	7.8	7.79	39 34	7.9	-3 9	+ 3.8	
11	15	4071	7.8	8.18	46 41	8.0	-1 11	+24.2	
12	15	4095	8.5	8.07	46 41	8.0	+1 57	+35.3	
13	14	4223	8.3	8.49	51 43	8.1	+1 9	-17.6	
14	15	4053	8.3		51 43	8.1	-3 37	+33.2	
15	14	4213	8.6		60 48	8.5	-0 19	-33.6	
16	14	4210	8.5		64 49	8.5	-0 53	-42.2	
17	15	4063	8.2	8.55	64 51	8.5	-2 29	+27.5	
18	15	4084	8.5	8.40	65 52	8.5	+0 28	+42.3	
19	15	4099	8.5	8.41	65 53	8.5	+2 18	+47.9	
20	14	4211	8.0		67 54	8.6	-0 53	-25.1	
21	15	4066	8.5	8.58	68 54	8.6	-1 55	+34.2	
22	14	4220	8.3		68 56	8.6	+0 33	-52.6	
23	16	4192	8.7	8.78	75 60	8.7	+2 5	+56.3	BD. $\Delta\delta = +58'.6$
24	15	4098	8.8		76 64	8.8	+2 16	+34.7	
25					79 66	8.9	+0 3	+29.3	no. 38 Ch. 7244
26	14	4217	9.0		86 74	9.2	+0 12	-28.8	
27	15	4079	9.4	9.36	90 78	9.4	+0 1	- 1.5	
28	15	4091	9.3		94 80	9.5	+1 33	+ 4.8	
29					94 82	9.5	-0 35	+23.1	no. 49 Ch. 7244
30	15	4070	9.3	9.64	96 86	9.8	-1 27	- 1.0	
31	15	4076	9.3	9.67	97 86	9.8	-0 15	+21.2	
32	15	4094	9.4		98 87	9.8	+1 46	+11.2	
33	14	4221	9.0	9.34	(98) 87	(9.8)	+0 38	-13.2	dpl. **
34	15	4080	9.4	9.97	100 91	9.9	+0 3	+25.7	
35	+15	4072	9.5	*	101 91	10.0	-1 3	- 7.8	10 <sup>M</sup> .3 in Ch. 7244.

nm.	BD.		HP.	Gradus		Magn.	$\Delta\alpha$	$\Delta\delta$	Notae
36	+14° 4204	9 <sup>M</sup> .4		106	86	10 <sup>M</sup> .0	-1 <sup>m</sup> 41 <sup>s</sup>	-15'.8	dpl.
37	14 4203	9.3		106	91	10.0	-1 55	-21.6	
38	14 4218	9.5		106	91	10.0	+0 24	-25.6	
39	15 4092	9.5	10 <sup>M</sup> .10	107	91	10.1	+1 34	+23.0	
40				110	92	10.1	+0 34	+24.7	no. 58 Ch. 7244
41				111	93	10.1	+0 7	- 8.3	
42			10.28	113	94	10.2	+0 3	+23.6	no. 59 „ „
43				110	95	10.3	-1 3	+ 5.0	no. 65 „ „
44	15 4086	9.5	10.40	116	95	10.5	+0 44	+ 9.5	
45	15 4067	9.5		116	96	10.5	-1 54	+11.1	
46				117	96	10.5	+1 14	- 9.6	
47	15 4093	9.5		119	98	10.5	+1 36	- 8.4	
48				119	100	10.6	-1 52	+ 9.1	
49	15 4083	9.5	10.60	121	101	10.6	+0 29	-10.2	BD. $\Delta\alpha = +24^s$
50	15 4077	9.4	10.69	121	101	10.6	-0 13	+ 2.8	***
51	+15 4088	9.4		123	102	10.7	+1 9	- 9.4	
52				125	107	10.9	+1 9	-14.1	
53				129	109	11.1	+0 1	- 4.6	
54				146	123	12.0	-0 8	- 1.2	
R	Sagittae	var.					+2 28	+66.0	Ch. 7257 Seriei IV <sup>ae</sup>
RW	Aquilae	var.					+0 15	+26.3	Ch. 7244 „ „

\* AGC. dpl. 8<sup>M</sup>.5 & 8<sup>M</sup>.5, 1<sup>''</sup>.5.

\*\* AGC. 9<sup>M</sup>.2 & 9<sup>M</sup>.5, 17<sup>''</sup>.

\*\*\* Deleta in BD. ed. 2; declinatio corrigenda +5'.6.

7244

## RW Aquilae

 $20^{\text{h}} 5^{\text{m}} 12^{\text{s}}$  (1855.0)  $+15^{\circ} 37'.8$ Max. =  $2415587^{\text{d}} + 7^{\text{d}}87 \text{ E.}$ 

Num.	BD.		HP.	Gradius	Magn.	$\Delta\alpha$	$\Delta\delta$	Notae
1	+14° 4227	5 <sup>M</sup> .0	4.96		5 <sup>M</sup> .0	+2 <sup>m</sup> 23 <sup>s</sup>	-52'.2	PD. W, 5 <sup>M</sup> .1, $\varphi$ Aquilae
2	16 4153	6.5	6.67		6.6	-3 43	+36.7	„ RG, 6.5
3	14 4242	7.7	6.91	0	6.8	+3 52	-45.0	
4	15 4096	6.8	7.01	1	6.9	+1 44	+12.1	„ RG, 7.1
5	15 4081	6.7	7.14	6	7.0	-0 2	-11.0	„ G, 7.2
6	16 4162	7.0	6.96	10	7.0	-2 43	+51.3	„ G, 7.2
7	16 4150	7.0	7.08	17	7.1	-4 18	+35.8	„ WG, 7.4
8	15 4087	7.0	7.42	23	7.3	+0 27	+ 9.4	„ G, 7.5
9	15 4074	7.0	7.26	27	7.4	-0 41	+ 6.9	„ GW, 7.5
10	16 4208	8.0		27	7.4	+5 6	+41.8	
11	15 4120	7.2	7.34	30	7.4	+5 18	-11.8	„ W, 7.8
12	16 4166	7.8		31	7.5	-2 15	+44.7	
13	15 4047	7.0	7.48	35	7.6	-4 30	+ 1.6	„ GW, 7.8
14	15 4097	7.8	7.55	36	7.6	+1 54	+ 5.7	*
15	16 4177	8.2	7.50	36	7.6	-0 35	+47.7	
16	15 4089	7.3	7.57	40	7.7	+1 0	+ 2.1	„ GW, 8.0
17	14 4179	8.0	8.09	40	7.7	-4 43	-47.0	
18	15 4057	7.8	7.79	43	7.9	-3 24	-22.5	
19	15 4095	8.5	8.07	46	7.9	+1 43	+ 9.0	
20	14 4219	7.3	8.04	46	7.9	+0 11	-42.1	„ W, 8.2
21	16 4196	8.2	8.16	50	8.1	+2 10	+47.7	
22	15 4053	8.3		50	8.1	-3 52	+ 6.9	
23	14 4223	8.3	8.49	51	8.1	+0 54	-43.9	
24	15 4071	7.8	8.18	53	8.1	-1 26	- 2.1	
25	15 4066	8.5	8.58	61	8.5	-2 10	+ 8.0	
26	14 4213	8.6		61	8.5	-0 34	-59.9	
27	15 4105	8.8		62	8.5	+3 7	-21.8	
28	15 4063	8.2	8.55	65	8.5	-2 43	+ 1.2	
29	15 4099	8.5	8.41	66	8.5	+2 4	+21.6	
30	15 4084	8.5	8.40	67	8.5	+0 13	+16.0	
31	16 4179	9.0		70	8.6	0 0	+52.6	
32	16 4192	8.7	8.78	71	8.7	+1 51	+30.0	BD. $\Delta\delta = + 32'.3$
33	14 4240	8.5	8.64	71	8.7	+3 41	-37.8	
34	14 4211	8.0		71	8.7	-1 8	-51.4	
35	+14 4199	8.8	8.84	75	8.7	-2 49	-43.5	

Num.	BD.		HP.	Gradus	Magn.	$\Delta\alpha$	$\Delta\delta$	Notae
36	+15° 4098	8 <sup>M</sup> .8		75	8 <sup>M</sup> .8	+2 <sup>m</sup> 1 <sup>s</sup>	+ 8'.4	
37	15 4107	8.7	8 <sup>M</sup> .89	77	8.8	+3 29	+18.8	
38				79	8.9	-0 12	+ 3.0	no. 25 Ch. 7242
39	15 4075	9.2	9.39	83	9.0	-0 37	+ 4.5	
40	16 4181	9.0		84	9.1	+0 25	+28.8	
41	16 4183	8.9	8.94	84	9.1	+0 29	+40.1	
42	16 4203	9.2	9.11	85	9.1	+3 2	+42.7	
43	16 4200	9.3	9.07	87	9.2	+2 34	+40.9	
44				87	9.2	+3 20	+41.0	no. 23 Ch. 7257
45	15 4100	9.0		87	9.2	+2 38	-22.0	
46	14 4217	9.0		90	9.2	-0 3	-55.1	
47	16 4188	9.3		94	9.4	+0 49	+38.3	
48	15 4079	9.4	9.36	95	9.4	-0 14	-27.8	
49				99	9.5	-0 50	- 3.2	no. 29 Ch. 7242
50	16 4185	9.3		100	9.5	+0 35	+25.8	
51	15 4085	9.3	9.41	101	9.5	+0 26	+17.7	
52	15 4091	9.3		102	9.5	+1 18	-21.5	
53	15 4094	9.4		104	9.8	+1 31	-15.1	
54	15 4076	9.3	9.67	105	9.8	-0 30	- 5.1	
55	14 4221	9.0	9.34	105	9.8	+0 23	-39.3	dpl. **
56	15 4090	9.2		106	9.8	+1 0	+12.8	
57	15 4080	9.4	9.97	109	9.9	-0 12	- 0.6	
58				110	10.1	+0 19	- 1.6	no. 40 Ch. 7242
59			10.28	113	10.2	-0 12	- 2.7	no. 42 Ch. „
60	16 4191	9.5	10.36	113	10.2	+1 50	+39.8	
61	15 4092	9.5	10.10	113	10.2	+1 19	- 3.3	
62	15 4070	9.3	9.64	114	(10.2)	-1 42	-27.3	9 <sup>M</sup> .8 in Ch. „
63	15 4069	9.4		117	10.2	-1 59	+14.9	
64	15 4073	9.4		120	10.3	-1 14	+18.9	
65				120	10.3	-1 18	-21.3	no. 43 Ch. „
66	15 4072	9.5		122	10.3	-1 18	-34.1	10 <sup>M</sup> .0 in Ch. „
67	15 4077	9.4	10.69	125	10.6	-0 28	-23.5	***
68	16 4172	9.5		126	10.6	-0 51	+25.9	
69	+15 4086	9.5	10.40	126	10.6	+0 29	-16.8	
S	Aquilae	var.				-0 15	-26.3	Ch. 7242 Seriei IV <sup>ae</sup>
R	Sagittae	var.				+2 14	+39.8	Ch. 7257 „ „

\* AGC. dpl. 8<sup>M</sup>.5 & 8<sup>M</sup>.5, 1''.5.

\*\* AGC. 9<sup>M</sup>.2 & 9<sup>M</sup>.5, 0<sup>s</sup>.1, 17''.

\*\*\* Deleta in BD. ed. 2; declinatio corrigenda + 5'.6.

7257

## R Sagittae

 $20^{\text{h}} 7^{\text{m}} 27^{\text{s}} (1855.0) + 16^{\circ} 17'.4$ 
 $\text{Max.} = 2\,400\,358^{\text{d}}5 + 70^{\text{d}}56\text{ E (Inaequalitas periodica). }^*$ 

Num.	BD.		HP.	Gradus		Magn.	$\Delta\alpha$	$\Delta\delta$	Notae
1	+15° 4096	6 <sup>M</sup> .8	7 <sup>M</sup> .01	0	0	6 <sup>M</sup> .9	-0 <sup>m</sup> 30 <sup>s</sup>	-27'.6	PD. RG, 7 <sup>M</sup> .0, (gr)
2	15 4081	6.7	7.14	6	4	7.0	-2 16	-50.8	„ G, 7.2 (gr)
3	16 4208	8.0		12	11	7.4	+2 52	+ 2.0	
4	15 4074	7.0	7.26	12	11	7.4	-2 55	-32.8	„ GW, 7.5
5	15 4087	7.0	7.42	15	12	7.4	-1 46	-30.4	„ G, 7.5
6	15 4120	7.2	7.34	15	16	7.4	+3 4	-51.6	„ W, 7.8
7	16 4177	8.2	7.50	22	18	7.6	-2 48	+ 7.9	
8	15 4089	7.3	7.57	24	21	7.7	-1 14	-37.7	„ GW, 8.0
9	15 4097	7.8	7.55	24	23	7.7	-0 20	-34.1	dpl. 1''.5 (AGC)
10	15 4095	8.5	8.07	31	29	7.9	-0 31	-30.7	
11	15 4071	7.8	8.18	35	30	8.1	-3 40	-41.9	
12	16 4196	8.2	8.16	38	33	8.1	-0 3	+ 7.9	
13	15 4099	8.5	8.41	45	38	8.5	-0 10	-18.2	(g)
14	15 4084	8.5	8.40	47	40	8.5	-2 1	-23.8	
15	16 4192	8.7	8.78	53	45	8.7	-0 23	- 9.8	BD. -7'.4
16	15 4107	8.7	8.89	57	48	8.8	+1 15	-21.0	
17	15 4098	8.8		57	48	8.8	-0 13	-31.3	
18	16 4199	9.3		62	52	9.0	+0 17	+18.4	(r)
19	16 4203	9.2	9.11	66	54	9.1	+0 48	+ 2.9	
20	16 4181	9.0		66	56	9.1	-1 49	-10.9	
21	15 4110	9.0		67	57	9.1	+1 46	-24.6	
22	16 4183	8.9	8.94	68	59	9.1	-1 45	+ 0.3	
23				68	60	9.2	+1 6	+ 1.2	no. 44 Ch. 7244
24	16 4200	9.3	9.07	70	62	9.2	+0 20	+ 1.1	
25	16 4193	9.4		73	64	9.4	-0 5	+12.1	BD. -0 <sup>m</sup> 9 <sup>s</sup> +15'.0
26	15 4085	9.3	9.41	73	64	9.4	-1 47	-22.0	
27	16 4188	9.3		75	65	9.4	-1 25	- 1.4	
28				75	67	9.5	+1 50	-24.3	
29	16 4185	9.3		77	68	9.5	-1 39	-13.9	
30				79	69	9.6	+1 26	- 0.6	
31	15 4090	9.2		81	71	9.8	-1 13	-27.0	
32	+16 4195	9.4	9.61	81	71	9.8	-0 2	+15.1	BD. -0 <sup>m</sup> 6 <sup>s</sup>
33				85	73	9.9	-0 52	-26.6	
34				88	74	9.9	-0 58	- 2.7	
35				89	74	9.9	+0 18	- 6.6	

Num.	BD.		HP.	Gradus		Magn.	$\Delta\alpha$	$\Delta\delta$	Notae
36	+16° 4201	9. <sup>M</sup> 5	10. <sup>M</sup> 36	89	75	10. <sup>M</sup> 0	+0 <sup>m</sup> 40 <sup>s</sup>	+29'.6	multipl.
37	16 4187	9.4		93	75	10.1	-1 26	+26.5	
38				94	76	10.1	-1 40	-26.0	
39				94	77	10.2	-1 44	-18.1	
40	16 4191	9.5		94	80	10.2	-0 24	+ 0.1	
41				95	79	10.2	+0 15	+ 9.0	
42	16 4205	9.5		99	78	10.3	+1 15	-16.2	
43				99	79	10.3	-0 5	+ 9.2	
44	16 4180	9.4		99	79	10.3	-1 50	+ 4.1	
45	+16 4204	9.5		97	80	10.3	+1 5	+16.9	
46				103	83	10.5	-0 11	+11.2	Ch. 7242 Seriei IV <sup>ac</sup> Ch. 7244 " "
47				103	84	10.5	-0 18	+12.2	
48				110	85	10.7	-1 7	- 0.3	
S	Aquilae	var.					-2 28	-66.0	
RW	Aquilae	var.					-2 14	-39.8	

\* Secundariae phases lucis maximae et minimae sequuntur principales post 35 et 33 dies.

7259

## RS Cygni

 $20^{\text{h}} 8^{\text{m}} 8^{\text{s}}$  (1855.0)  $+38^{\circ} 17'.6$ 

Periodus irregularis?

Num.	BD.		HP.	Gradus		Magn.	$\Delta\alpha$	$\Delta\delta$	Notae
1	+37° 3871	5. <sup>M</sup> 3	4. <sup>M</sup> 88			4. <sup>M</sup> 9	+4 <sup>m</sup> 20 <sup>s</sup>	-42'.3	PD. GW, 5. <sup>M</sup> 0, P Cygni *
2	38 3977	6.5	6.14	0	0	6.2	+2 40	+ 9.9	„ GW, 6.7
3	39 4115	6.9	6.60	7	13	6.6	+4 3	+51.4	„ W+, 7.0
4	38 3956	7.2	7.10	18	28	7.0	-0 1	+ 2.2	„ GW, 7.3
5	38 3963	7.5	6.97	22	33	7.1	+0 33	+25.7	„ GW-, 7.5
6	38 3927	6.8	7.26	25	35	7.2	-3 31	+24.9	„ W, 7.4
7	38 3946	6.9	7.19	29	36	7.3	-1 11	-17.0	„ WG-, 7.3
8	37 3821	7.1	7.44	33	44	7.5	-1 18	-22.3	„ W+, 7.7
9	38 3940	7.4	7.67	36	45	7.5	-1 45	+ 9.3	„ WG+, 7.6
10	38 3939	7.5	7.96	42	58	7.8	-1 57	+ 5.6	„ WG, 7.9
11	37 3812	7.8		44	62	7.9	-1 59	-19.7	
12	39 4113	7.5	7.65	44		7.9	+3 27	+57.7	dpl.
13	38 3971	7.9	8.12	46	68	8.0	+1 48	- 7.4	
14	37 3827	8.9		50	68	8.1	-0 40	-20.1	
15	38 3958	8.4	8.31	53	75	8.3	+0 5	-15.0	
16	38 3941	8.3		56	78	8.4	-1 37	- 2.6	
17	38 3942	8.2		60	86	8.5	-1 31	- 1.5	
18	37 3844	8.7	8.60	63		8.6	+1 31	-35.6	
19	37 3828	8.9		67	91	8.7	-0 37	-30.0	
20	37 3811	8.7		68	94	8.7	-2 8	-29.7	
21	38 3952	8.8		69	96	8.8	-0 20	-14.8	
22	37 3834	9.0		73	106	8.9	+0 33	-29.6	
23	38 3954	9.0	9.15	76	110	9.0	-0 7	- 7.3	(gr)
24	38 3951	8.8		76	114	9.0	-0 22	+15.2	
25	38 3960	9.4	9.23	78	119	9.1	+0 13	- 1.0	(rg)
26	38 3948	8.9		81	119	9.2	-0 42	+17.9	
27	38 3968	9.0		84	130	9.3	+1 24	-16.7	
28	37 3837	9.2		85	132	9.3	+0 42	-29.2	
29	37 3852	9.3		86		9.3	+2 3	-31.0	
30	37 3843	9.4		86		9.3	+1 13	-31.6	
31	38 3973	9.0		86	133	9.3	+2 4	+18.0	
32	38 3965	9.0		89	135	9.4	+1 15	+11.6	
33	38 3964	9.0		89	137	9.4	+0 56	-14.7	
34	38 3972	9.0		91	137	9.5	+2 2	+19.6	
35	+38 3966	9.2		92	140	9.5	+1 14	-15.1	



Num.	BD.		HP.	Gradus	Magn.	$\Delta\alpha$	$\Delta\delta$	Notae
36	+38°	3953	9. <sup>M</sup> 0	92 141	9. <sup>M</sup> 5	-0 <sup>m</sup> 7 <sup>s</sup>	+20.9	dpl.
37	38	3943	9.4	92 141	9.5	-1 19	+ 6.5	
38	38	3974	9.2	95 148	9.6	+2 3	+22.4	
39	38	3949	9.1	96 148	9.6	-0 42	+18.7	
40				98 155	9.7	+2 16	+26.0	
41	38	3947	9.3	99 165	9.8	-0 44	- 1.9	
42	37	3832	9.5	101 167	9.8	+0 5	-22.7	
43	38	3950	9.3	103 168	9.9	-0 41	- 9.0	
44	38	3944	9.3	106 169	9.9	-1 20	+15.4	
45	37	3853	9.5	108 170	10.0	+2 17	-28.3	
46				108 172	10.0	-0 2	- 8.4	
47				109 175	10.0	+0 10	-26.9	
48	38	3945	9.3	110 176	10.0	-1 14	+19.4	
49	38	3955	9.2	111 178	10.0	-0 4	+ 9.0	
50	38	3935	9.5	112 179	10.1	-2 29	-14.4	
51				114 183	10.1	+0 59	-22.1	
52				114 190	10.2	-0 20	+12.0	
53	38	3969	9.5	118 186	10.2	+1 33	- 2.0	
54				121 189	10.3	+2 5	+ 2.7	
55	37	3848	9.5	123 195	10.4	+1 43	-29.2	
56	38	3970	9.5	124 195	10.4	+1 47	+ 2.2	
57				126 198	10.4	-0 21	+ 6.3	
58	38	3967	9.3	127 198	10.4	+1 20	- 9.4	
59	+38	3975	9.5	127 200	10.5	+2 22	+17.7	dpl.

\* Nova 1600: 3<sup>M</sup> - < 6<sup>M</sup>; ab anno 1677: 5<sup>M</sup>.

## RT Capricorni

20<sup>h</sup> 8<sup>m</sup> 37<sup>s</sup> (1855.0) — 21° 45'.6

Variatio ignota.

Num.	BD.		HP.	Gradus	Magn.	$\Delta\alpha$	$\Delta\delta$	Notae
1	-22°	5384	6 <sup>M</sup> .0	5 <sup>M</sup> .96	6 <sup>M</sup> .0	+0 <sup>m</sup> 54 <sup>s</sup>	-29'.6	4 Capricorni
2	21	5684	7.0	6.61	0	+2 20	+21.7	
3	22	5406	7.3	7.42	18	+4 59	-38.9	
4	22	5385	7.8	7.64	26	+0 58	-40.7	
5	21	5694	7.6		29	+4 27	- 6.1	
6	22	5372	7.5	7.90	35	-2 50	-42.9	
7	21	5690	8.7		41	+3 40	+30.8	
8	21	5647	8.0		44	-3 52	- 7.1	
9	21	5660	8.4	8.48	46	-1 36	- 8.5	
10	22	5389	8.5		47	+2 4	-49.2	
11	21	5669	8.3	8.90	50	-0 18	+23.6	
12	21	5681	8.5		51	+2 14	+ 8.9	
13	22	5390	8.8		53	+2 33	-34.4	
14	22	5366	8.5		54	-3 52	-43.9	
15	21	5654	8.7		58	-2 37	-14.2	
16	21	5655	8.6	9.32	60	-2 24	+ 8.3	
17	21	5656	9.0		63	-2 14	+31.6	
18	22	5387	9.1		66	+2 1	-20.1	
19	21	5674	9.0	9.84	70	+0 6	+ 6.9	
20	21	5688	9.1		71	-0 44	- 0.5	
21	22	5379	9.1		73	-0 49	-29.1	
22	21	5677	9.1	9.95	73	+1 26	- 1.1	
23	21	5673	9.2	10.29	76	+0 5	+ 1.2	
24	22	5374	9.4		78	-2 34	-43.4	
25	21	5658	9.3		78	-1 51	+23.3	
26	21	5678	9.3		81	+1 26	+17.6	
27	21	5664	9.3		82	-1 10	+ 4.5	
28	21	5679	9.4		85	+1 47	+22.5	
29	21	5671	9.6		85	-0 7	+26.0	
30	21	5661	9.5		86	-1 29	- 2.6	
31	21	5659	9.5		87	-1 47	- 0.9	
32	21	5665	9.7		89	-1 8	- 4.7	
33	21	5675	9.6	10.83	91	+0 38	+12.6	
34	21	5666	10	10.62	92	-1 3	- 3.1	
35	21	5676	9.7		94	+0 43	-13.6	
36	21	5662	10		97	-1 28	+12.2	
37	22	5383	10		101	+0 12	-22.3	
38	21	5667	9.8		104	-1 2	-14.4	
39				11.18	105	-0 25	- 3.8	
40	-21	5670	10	11.23	109	-0 9	- 5.3	
W	Capricorni	var.				-2 39	-39.4	Ch. 7252 Seriei I <sup>ae</sup>

7299

## U Cygni

 $20^h 15^m 7^s$  (1855.0)  $+47^\circ 26'.3$ Max. =  $2404596^d + 461^d 3 E$  (inaequalitas systematica).

Num.	BD.		HP.	Gradus		Magn.	$\Delta\alpha$	$\Delta\delta$	Notae
1	+46° 2882	4.0 <sup>M</sup>	3.95 <sup>M</sup>			4.0 <sup>M</sup>	-6 <sup>m</sup> 1 <sup>s</sup>	-68'.5	PD. G, 4.0 <sup>M</sup> , 31 Cygni
2	47 3059	5.0	4.16			4.2	-4 8	-10.4	„ G+, 4.2, 32 Cygni
3	46 2881	5.0	4.96			5.0	-6 21	-64.0	„ W+, 5.0, 30 Cygni
4	46 2910	6.5	6.15	0		6.6	+0 15	-63.5	„ W+, 6.8
5	46 2883	7.5	6.94	5	0	6.9	-6 0	-70.2	„ W, 7.4
6	47 3054	7.8		14	7	7.3	-4 51	-26.7	
7	47 3053	8.0		19	18	7.5	-4 53	-10.6	
8	48 3117	7.7		21	22	7.6	+5 0	+47.3	
9	48 3108	8.1	7.87	25	30	7.9	+3 34	+54.7	(rg)
10	47 3078	8.3	7.94	28	24	7.9	+0 5	+ 0.7	
11	47 3061	8.3		28	27	7.9	-3 52	-16.3	
12	47 3064	8.5	8.00	32	32	8.0	-2 39	- 3.4	
13	48 3107	8.4	8.40	36	39	8.2	+3 14	+36.7	
14	47 3060	8.9		36	39	8.2	-4 6	-13.8	
15	47 3091	8.7		41	41	8.4	+3 20	-20.5	
16	48 3071	8.5		42	41	8.4	-3 36	+33.9	
17	48 3083	8.7		36	55	8.5	-1 35	+56.8	
18	47 3103	8.5		44	46	8.5	+5 33	+ 1.9	
19	47 3049	8.3		46	47	8.6	-5 56	+16.3	
20	46 2899	8.8		48	50	8.7	-2 17	-27.4	
21	47 3089	8.5		48	56	8.7	+2 39	- 6.4	dpl.
22	47 3062	8.8		50	52	8.7	-3 37	+18.2	
23	47 3090	8.6		51		8.7	+3 7	- 6.3	dpl.
24	47 3071	8.8	8.97	56	64	9.0	-1 56	+26.0	
25	48 3069	8.6		57	64	9.0	-4 5	+38.6	
26	47 3083	9.2		62	76	9.3	+1 11	+ 7.7	
27	46 2919	9.4		66	79	9.5	+0 58	-27.8	
28	47 3074	9.1		70	81	9.6	-0 47	+ 3.2	
29	47 3065	9.1		70	82	9.6	-2 22	-23.3	
30	46 2903	9.4		72	85	9.7	-1 40	-29.2	
31	47 3067	9.3		74	87	9.8	-2 19	+ 1.0	
32	47 3073	9.3		75	90	9.9	-0 50	+ 3.8	
33				78	94	10.0	+1 37	-23.7	
34	47 3068	9.4		79	96	10.0	-2 10	- 0.5	
35	+47 3079	9.5	10.16	82	97	10.1	+0 13	-17.6	

Num.	BD.		HP.	Gradus		Magn.	$\Delta\alpha$	$\Delta\delta$	Notae
36	+47° 3070	9.4 <sup>M</sup>	10.13 <sup>M</sup>	83	99	10.2 <sup>M</sup>	-1 <sup>m</sup> 57 <sup>s</sup>	-22.6	
37	47 3075	9.5		84	99	10.2	-0 6	-23.1	
38	47 3088	9.4		84	99	10.2	+2 38	-25.8	
39	47 3076	9.5	10.00	85	99	10.2	-0 2	- 8.9	
40	47 3084	9.5		88	101	10.3	+1 34	-21.5	
41	47 3086	9.4	10.56	88	101	10.3	+2 9	+20.8	
42				90	103	10.4	+0 22	- 0.2	
43	47 3087	9.5		94	104	10.5	+2 38	-20.3	
44				96	106	10.6	-0 48	-22.1	
45	47 3080	9.5		98	106	10.6	+0 41	+18.6	
46				98	106	10.6	+1 46	- 3.0	
47				100	107	10.7	-0 4	+13.2	
48	47 3081	9.5		100	108	10.7	+0 36	+21.5	dpl. 9 <sup>M</sup> .6 et 9 <sup>M</sup> .7
49				103	108	10.8	-0 43	- 2.1	
50				103	112	10.8	+0 23	+ 9.0	
51	47 3072	9.5		103	112	10.8	-1 6	+25.8	
52				113	116	11.1	-1 28	+27.5	
53				113	126	11.3	0 0	+ 2.1	
SV	+47 3066	9.5					-2 20	-10.9	*
	Cygni	var.					-10 3	- 0.1	Ch. 7239 Seriei IV <sup>ae</sup>

\* Non in Charta; composita ex tribus.

7351

## RW Cygni

 $20^{\text{h}} 23^{\text{m}} 35^{\text{s}}$  (1855.0)  $+39^{\circ} 30'.1$ 

Variatio ignota.

Num.	BD.		HP.	Gradus		Magn.	$\Delta\alpha$	$\Delta\delta$	Notae
1	+39°	4159	2 <sup>M</sup> .8	2 <sup>M</sup> .32		2 <sup>M</sup> .3	-6 <sup>m</sup> 34 <sup>s</sup>	+17'.2	PD. WG-, 2 <sup>M</sup> .5, $\gamma$ Cygni
2	39	4172	7.5	6.98	0	0	-4 0	+10.7	„ G-, 7.0 (rg)
3	39	4186	7.3	6.56	1	3	-2 45	+25.5	„ W+, 6.9
4	38	4102	7.4	7.11	4	9	-0 27	-39.2	„ WG, 7.3 (g)
5	39	4192	7.2	7.16	9	14	-2 8	-28.9	„ GW, 7.4
6	40	4206	7.1	7.52	9	20	+1 42	+31.3	(rg)
7	40	4211	7.1	7.47	13	25	+2 18	+52.2	(gr)
8	39	4196	7.7		19	30	-1 28	-14.8	
9	39	4221	7.4	7.30	21	30	+2 35	- 2.9	„ GW-, 8.0
10	39	4178	7.5	7.30	23	32	-3 22	-10.9	„ GW, 7.8
11	39	4219	7.2	7.47	24	33	+2 13	+26.4	„ GW-, 7.9
12	38	4088	8.0		27	35	-2 6	-31.0	
13	39	4193	7.7		30	39	-2 5	+22.1	
14	39	4180	7.6		33	42	-3 19	+ 7.3	AGC. dpl.
15	40	4188	8.0		35	51	-0 14	+55.2	
16	40	4205	7.7		37	55	+1 34	+40.8	
17	40	4183	8.2		37	57	-0 43	+37.7	
18	39	4210	8.0	8.10	39	60	+0 33	+ 6.9	
19	39	4195	8.5	8.48	46	74	-1 42	+ 4.4	(gr)
20	38	4106	8.6		48	82	-0 9	-30.4	
21	39	4197	9.1		56	86	-1 10	- 7.1	
22	39	4206	8.8	8.79	57	89	-0 7	- 2.0	
23	39	4212	8.9		57	90	+0 54	-19.9	
24	39	4217	8.6		61	93	+1 52	+ 3.8	
25	38	4112	9.0		64	96	+0 35	-30.6	
26	39	4199	9.1		66	99	-1 5	-29.4	
27	39	4214	8.8		66	100	+1 7	-24.6	
28	39	4213	8.4	8.68	66	104	+1 4	+22.9	dpl. AGC. 7"
29	39	4220	8.9		69	105	+2 20	- 0.2	
30	39	4209	8.9	9.11	69	109	+0 12	+ 6.9	
31	39	4189	9.3	9.18	70	112	-2 29	-18.8	
32	39	4200	9.2		72	109	-1 5	- 9.5	
33	39	4203	9.4		76	114	-0 32	+ 6.4	
34	39	4211	9.5	9.42	77	117	+0 46	-15.6	
35	+39	4191	9.4		77	120	-2 12	+29.5	

Num.	BD.		HP.	Gradus	Magn.	$\Delta\alpha$	$\Delta\delta$	Notae
36	+39° 4194	9 <sup>M</sup> .2	9 <sup>M</sup> .79	77 120	9 <sup>M</sup> .5	-1 <sup>m</sup> 42 <sup>s</sup>	+13'.0	
37	39 4204	9.5		81 121	9.6	-0 31	+ 5.4	
38	39 4205	9.5		81 125	9.7	-0 11	-22.0	
39	39 4190	9.5		84 127	9.8	-2 25	+15.5	
40	39 4198	9.5		85 132	9.8	-1 8	-27.0	
41	39 4216	9.5	9.95	86 134	9.9	+1 32	+ 2.9	
42	39 4218	9.5		86 135	9.9	+2 13	+ 6.1	
43	39 4215	9.5		88 134	9.9	+1 18	+ 7.7	
44	39 4207	9.4		90 135	10.0	-0 2	+22.3	
45				93 137	10.0	+2 0	+13.8	
46				95 139	10.1	+1 40	+ 1.8	
47	39 4201	9.5		95 140	10.1	-0 47	- 1.4	
48	+39 4202	9.5		98 141	10.2	-0 36	+25.1	
49				118 147	10.7	+0 54	- 2.7	
50				119 155	10.8	-0 2	+11.7	
51				122 158	10.9	+0 1	+ 3.0	

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## SZ Cygni

 $20^{\text{h}} 28^{\text{m}} 10^{\text{s}}$  (1855.0)  $+46^{\circ} 6'.5$ Max. =  $2414931^{\text{d}}640 + 15^{\text{d}}084 \text{ E.}$ 

Num.	BD.		HP.	Gradus	Magn.	$\Delta\alpha$	$\Delta\delta$	Notae
1	+44° 3541	1 <sup>M</sup> .7	1 <sup>M</sup> .33		1 <sup>M</sup> .3	+8 <sup>m</sup> 23 <sup>s</sup>	-80'.2	PD. W, 1 <sup>M</sup> .6, $\alpha$ Cygni.
2	46 2977	6.0	5.59		5.6	+1 0	+ 5.4	„ W+, 6.0
3	45 3196	6.5	6.59		6.6	-2 57	-40.3	„ WG+, 6.6
4	47 3154	6.8	6.64		6.6	+5 26	+87.5	„ WG, 6.9
5	45 3233	6.7	6.46		6.6	+6 23	-56.8	„ W, 6.8
6	47 3117	7.2	7.24	0	7.2	-4 4	+61.1	„ WG-, 7.6
7	45 3191	7.5	7.32	2	7.3	-4 7	-52.5	„ W+, 7.7
8	45 3217	7.6		7	7.5	+1 3	-11.2	
9	46 2969	7.7		10	7.6	+0 22	+33.9	
10	46 2983	8.0	7.81	16	7.8	+1 56	+14.5	
11	47 3157	7.9	7.60	19	7.9	+6 4	+64.5	
12	46 3001	7.5	7.62	20	7.9	+6 51	+43.8	„ W, 8.3
13	46 2958	8.1	8.00	22	8.0	-1 53	+10.5	
14	46 2993	8.0		25	8.1	+5 11	+16.5	
15	46 2989	8.2		27	8.2	+3 34	+41.9	
16	47 3119	8.1		31	8.3	-3 49	+60.5	
17	47 3159	7.8	8.10	31	8.3	+6 49	+57.6	
18	46 2982	8.6		32	8.3	+1 50	+13.9	
19	47 3123	8.7		36	8.5	-3 30	+57.8	
20	46 2975	8.7	8.46	36	8.5	+0 52	+23.4	
21	45 3226	9.1		39	8.6	+3 0	-16.2	
22	46 2954	8.8		39	8.6	-2 16	+ 0.1	
23	45 3203	8.8		41	8.7	-1 46	-18.1	
24	46 2972	8.7		43	8.8	+0 38	+26.8	
25	46 2978	9.0		43	8.8	+1 4	+ 7.3	
26	45 3205	9.0		44	8.8	-1 19	-29.2	
27	46 2956	8.6	8.85	45	8.9	-2 3	+11.2	
28	46 2964	8.8		48	9.0	-0 42	+12.3	
29	46 2960	8.9	9.27	50	9.1	-1 37	+ 8.0	
30	46 2987	9.4		53	9.2	+2 42	+24.9	
31	46 2976	9.1		55	9.3	+0 59	+19.6	
32	46 2961	9.1		57	9.3	-1 33	+17.3	
33	46 2965	9.1	9.50	60	9.4	-0 17	- 1.1	
34	46 2984	9.5		61	9.5	+2 6	+ 6.2	
35	+45 3207	9.4		62	9.5	-1 11	-16.0	

Num.	BD.		HP.	Gradus	Magn.	$\Delta\alpha$	$\Delta\delta$	Notae
36	+46° 2970	9. <sup>M</sup> 5	9. <sup>M</sup> 54	64	9. <sup>M</sup> 6	+0 <sup>m</sup> 25 <sup>s</sup>	-- 2'.3	*
37	45 3201	9.3		67	9.7	-2 6	-15.3	
38	45 3214	9.3		67	9.7	+0 3	-26.5	
39	46 2968	9.3		67	9.7	+0 16	+16.9	
40	46 2971	9.4	9.69	67	9.7	+0 40	+ 8.6	
41	45 3209	9.4		69	9.8	-0 45	-19.6	quadrpl. **
42	45 3223	9.2		69	9.8	+2 16	-31.8	
43	46 2967	9.3	9.82	74	9.9	+0 13	+15.3	
44	45 3206	9.5		75	10.0	-1 11	-30.1	
45	45 3220	9.5	9.94	76	10.0	+1 53	-12.3	
46	45 3221	9.3		77	10.1	+2 2	-33.0	
47	46 2953	9.5		81	10.2	-2 30	+ 2.1	
48				83	10.3	+0 33	- 0.7	
49	46 2952	9.5		84	10.3	-2 34	- 1.8	
50				86	10.4	-0 36	- 4.1	
51	+45 3204	9.5		89	10.5	-1 35	-14.7	

\* Designata Variabilis TV Cygni in A.N. 3752.

\*\* BD.+ 45° 3222 et 3224 huius cumuli hic non indicantur.



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## V Vulpeculae

 $20^{\text{h}} 30^{\text{m}} 22^{\text{s}}$  (1855.0) +  $26^{\circ} 6'.2$ Min. =  $2416\,411^{\text{d}}.4 + 37^{\text{d}}.79\text{ E.}$ 

Num.	BD.		HP.	Gradus	Magn.	$\Delta\alpha$	$\Delta\delta$	Notae
1	+25°	4302	6 <sup>M</sup> .0	5 <sup>M</sup> .52	5 <sup>M</sup> .6	+0 <sup>m</sup> 32 <sup>s</sup>	- 8'.6	PD. W, 5 <sup>M</sup> .9, 27 Vulp.
2	25	4299	7.2	6.29	0	-0 26	-43.3	„ W+, 6.7, 26 „
3	25	4329	7.0	6.75	5	+4 8	-31.9	„ GW-, 7.1
4	25	4312	7.3	7.02	11	+2 47	-32.3	„ WG, 7.2
5	26	3928	7.1	7.13	12	-3 39	+36.9	„ WG-, 7.2
6	26	3947	7.5	7.04	16	+2 59	+ 5.2	„ W+, 7.4
7	25	4310	8.1	7.71	30	+2 10	-63.4	
8	25	4284	8.5	8.16	35	-2 36	-58.9	
9	25	4281	7.9	7.76	36	-2 56	-43.3	
10	25	4280	8.4		41	-2 56	-45.7	
11	26	3941	8.0	7.82	43	+1 32	+28.3	
12	26	3953	8.1		44	+3 37	+27.9	
13	25	4324	8.5		47	+3 44	-49.3	
14	27	3780	8.3		48	-4 2	+55.1	
15	25	4316	8.7		50	+3 6	-18.1	
16	26	3946	8.9		51	+2 58	+ 1.4	
17	25	4308	8.7	8.61	52	+1 46	-61.0	
18	25	4318	8.8		53	+3 26	-15.8	
19	26	3938	8.4	8.55	54	+0 26	+28.4	
20	25	4323	8.9		56	+3 39	-34.3	
21	26	3943	8.7		58	+2 23	+ 5.5	
22	26	3952	8.8		58	+3 31	+40.1	
23	26	3955	8.6		61	+3 59	+11.8	
24	26	3930	8.7		61	-3 11	+51.5	
25	25	4306	8.7		61	+1 25	-17.6	
26	25	4301	8.8	8.82	63	-0 4	-12.5	St. W. 8 <sup>M</sup> .5 *
27	25	4305	8.9		70	+1 3	-35.5	
28	25	4304	8.9	9.41	74	+0 45	-13.5	
29	25	4289	8.9	9.08	75	-1 51	- 6.9	
30	25	4300	9.0		75	-0 24	-28.4	
31	26	3935	8.8		76	-0 39	+38.3	
32	26	3936	9.1	9.30	80	-0 37	+ 8.8	„ 9.3 *
33	26	3939	9.5	9.74	85	+0 36	+ 7.9	„ 9.9 *
34	25	4290	9.4	9.58	88	-1 47	-24.3	
35	+26	3940	9.5		91	+1 20	- 2 8	

Num.	BD.		HP.	Gradus	Magn.	$\Delta\alpha$	$\Delta\delta$	Notae
36	+26°	3933	9. <sup>M</sup> 5	91	10. <sup>M</sup> 0	-1 <sup>m</sup> 47 <sup>s</sup>	+16'.0	
37				94	10.1	-1 36	+19.0	
38	25	4303	9.5	98	10.3	+0 40	-23.9	
39				101	10.4	-0 31	+ 0.7	
40	26	3934	9.5	103	10.5	-1 21	- 4.3	
41				106	10.6	-0 17	- 3.0	
42			10. <sup>M</sup> 68	107	10.7	-0 3	- 2.1	
43	+25	4293	9.5	108	10.8	-1 4	-23.0	

\* Stanley Williams, Brit. Astron. Assoc., vol. 15, pp. 200—202.

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## U Delphini

20<sup>h</sup> 38<sup>m</sup> 50<sup>s</sup> (1855.0) + 17° 33'.9

Variatio irregularis.

Num.	BD.		HP.	Gradus		Magn.	$\Delta\alpha$	$\Delta\delta$	Notae
1	+17° 4382	6 <sup>M</sup> .5	6 <sup>M</sup> .27	0	0	6 <sup>M</sup> .2	-3 <sup>m</sup> 31 <sup>s</sup>	- 33'.8	PD. WG, 6 <sup>M</sup> .5
2	19 4484	6.5	6.40	8		6.4	-4 40	+110.6	„ WG, 6.6
3	17 4431	6.5	6.49	16		6.6	+5 7	- 2.9	„ GW, 7.0
4	17 4378	6.8	6.61	20	14	6.8	-4 35	- 30.7	„ GW, 7.0
5	19 4489	7.3	7.48	31		7.4	-3 15	+106.9	„ WG, 7.8
6	19 4490	7.3	7.52	38		7.5	-3 14	+ 92.7	„ W, 7.8
7	18 4586	8.2		40		7.6	-3 3	+ 78.7	
8	17 4421	8.0	8.35	48	32	7.9	+3 7	- 15.2	
9	17 4389	8.4	8.16	52	36	8.1	-1 30	- 30.9	
10	18 4585	8.3		58		8.2	-3 34	+ 86.2	
11	18 4591	8.3		59	33	8.2	-2 36	+ 58.4	
12	18 4612	8.3		63	39	8.4	+1 12	+ 41.0	
13	17 4422	8.2	8.42	64	40	8.4	+3 18	- 14.6	
14	16 4346	8.8		64	41	8.4	-3 53	- 39.7	
15	17 4397	8.3	8.47	67	41	8.5	-0 17	+ 12.2	(r)
16	18 4607	8.5		69	42	8.6	+0 14	+ 29.2	
17	17 4409	9.2		71	43	8.6	+1 46	- 6.8	
18	16 4350	8.3		74	44	8.7	-2 26	- 59.0	
19	17 4405	9.1		76	45	8.8	+0 52	- 10.6	
20	17 4399	8.8	9.03	81	51	9.1	-0 16	- 3.3	
21	18 4600	8.3		84	51	9.1	-1 15	+ 31.1	
22	17 4395	9.5		91	58	9.5	-0 47	+ 11.5	
23	17 4403	9.1		92	61	9.6	+0 31	+ 8.5	
24	17 4400	9.2	9.09	92	61	9.6	-0 5	+ 4.6	
25	18 4609	9.3		92	61	9.6	+0 24	+ 27.7	
26	17 4393	9.1		96	64	9.7	-1 0	+ 18.2	
27	17 4390	9.4		103	66	10.0	-1 13	- 7.0	
28				105	66	10.0	+1 25	+ 18.2	
29	17 4398	9.4	9.95	108	67	10.1	-0 17	- 0.7	
30				108	67	10.1	+1 59	- 1.1	
31	17 4411	9.5		113	69	10.2	+1 54	+ 9.0	
32	17 4408	9.5		103	69	10.2	+1 28	- 29.5	
33	17 4391	9.5		113	70	10.2	-1 4	- 23.5	
34	18 4603	9.3		105	71	10.2	-0 41	+ 30.1	
35	+17 4396	9.4	10.30	116	71	10.3	-0 40	- 19.5	

Num.	BD.		HP.	Gradus	Magn.	$\Delta\alpha$	$\Delta\delta$	Notae
36	+17° 4406	9.5 <sup>M</sup>		116 72	10.4 <sup>M</sup>	+0 <sup>m</sup> 10 <sup>s</sup>	+ 4'.1	dpl.
37				117 72	10.4	+1 8	+ 9.5	
38				118 73	10.4	+1 36	+13.9	
39				121 73	10.5	-0 58	- 1.1	
40	17 4392	9.5		124 73	10.6	-1 14	-25.4	
41				125 75	10.6	+1 44	+11.1	
42				125 75	10.6	+0 30	+22.2	
43				127 76	10.7	-0 42	-21.9	
44	17 4402	9.5	10.74 <sup>M</sup>	128 77	10.8	+0 26	+15.8	multipl.
45	17 4404	9.5	(11.20)	132 78	10.9	+0 36	+ 1.9	
46	+17 4394	9.5		132 78	10.9	-1 0	+23.7	
47				135 78	10.9	+1 17	+14.6	
48				136 78	11.0	-1 4	- 2.1	
S	Delphini	var.				-2 25	-59.9	Ch. 7431 Seriei II <sup>ae</sup>
V	„	var.				+2 21	+74.3	Ch. 7458 „ „

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## V Aquarii

 $20^h 39^m 29^s$  (1855.0) +  $1^\circ 54'.6$ Max. =  $2\ 411\ 760^d + 240^d$  E.

Num.	BD.		HP.	Gradus		Magn.	$\Delta\alpha$	$\Delta\delta$	Notae	
1	+2°	4250	6 <sup>M</sup> .5	6 <sup>M</sup> .35	0	0	6 <sup>M</sup> .3	+1 <sup>m</sup> 0 <sup>s</sup>	+52'.0	PD. W, 6 <sup>M</sup> .6
2	2	4253	7.0	6.94	12	17	6.9	+1 21	+16.6	„ WG, 7.0
3	1	4374	7.7	7.18	17	19	7.0	+3 9	- 0.6	
4	1	4363	7.8	7.24	24	24	7.3	+0 44	-36.4	
5	1	4369	7.5	7.36	29	27	7.4	+1 37	-43.0	„ WG, 7.4
6	2	4239	8.5		34	34	7.6	-1 38	+50.5	
7	0	4589	8.0		37	41	7.9	+1 51	-54.8	
8	1	4370	8.3	8.05	43	46	8.1	+1 46	-24.4	
9	2	4240	8.5		46	52	8.3	-1 20	+44.3	
10	1	4371	8.8		49	55	8.4	+1 54	-24.0	
11	2	4242	8.5	8.53	53	61	8.6	-0 48	+18.3	
12	1	4362	9.0	9.00	58	72	8.9	+0 37	+ 4.0	
13	1	4361	9.2	9.13	64	72	9.1	+0 24	-19.6	
14	1	4364	9.0		64	75	9.1	+0 48	-13.3	
15	2	4251	9.2		67	80	9.3	+1 12	+23.7	
16	2	4243	9.5		69	84	9.4	-0 36	+20.3	
17	2	4249	9.5		71	85	9.4	+0 45	+27.2	
18	2	4237	9.2		77	87	9.6	-1 42	+20.7	
19	1	4365	9.3	9.58	77	91	9.7	+1 3	-22.3	
20	1	4360	9.5	9.94	81	94	9.8	+0 5	+ 0.7	
21	2	4241	9.5		81	95	9.9	-1 6	+21.4	
22	1	4357	9.3	10.06	85	95	9.9	-1 27	+ 4.6	
23	1	4358	9.5	9.89	88	96	10.0	-0 2	-27.5	
24					96	98	10.2	+0 11	+18.6	
25	2	4238	9.5		98	100	10.3	-1 40	+23.4	
26	2	4246	9.5		100	102	10.4	+0 15	+26.6	
27	1	4366	9.5		104	104	10.5	+1 15	- 2.1	
28					104	105	10.5	-1 19	+17.5	
29	2	4236	9.5		107	105	10.6	-1 46	+23.5	
30					107	106	10.6	+1 18	- 2.2	
31	+1	4367	9.5		111	107	10.7	+1 18	- 4.2	dpl.
32					115	110	10.9	+0 58	- 5.8	
33					120	114	11.1	+0 37	- 8.1	

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## Y Cygni

 $20^{\text{h}} 46^{\text{m}} 16^{\text{s}} (1855.0) + 34^{\circ} 6'.9$ 
 $\text{Min.} = 1886, \text{Dec. } 9^{\text{d}} \left\{ \begin{array}{l} 9^{\text{h}} 24^{\text{m}} 3 \\ 11 \ 31.0 \end{array} \right. + 1^{\text{d}} 11^{\text{h}} 57^{\text{m}} \left\{ \begin{array}{l} 18^{\circ} 0 \\ 26.1 \end{array} \right. \text{E.}$ 

Num.	BD.		HP.	Gradus		Magn.	$\Delta\alpha$	$\Delta\delta$	Notae
1	+33°	4018	2 <sup>M</sup> .6	2 <sup>M</sup> .64		2 <sup>M</sup> .7	-5 <sup>m</sup> 55 <sup>s</sup>	-41'.3	PD. WG, 2 <sup>M</sup> .7, $\epsilon$ Cygni
2	33	4028	6.0	var.		(5.2)	-4 53	-16.5	" G, 5.2 *
3	32	3980	6.0	5.68		5.7	+1 47	-73.5	" G, 5.6
4	35	4282	7.5	6.70	0 0	6.8	-2 48	+54.7	" G, 6.7 (rg)
5	34	4180	6.8	6.73	3 2	6.9	-1 7	+5.9	" WG, 6.9
6	33	4085	7.3	7.40	8 9	7.1	+2 51	-53.9	" WG+, 6.9 (r)
7	34	4219	7.6		21	7.5	+6 36	+3.3	
8	33	4089	7.5	8.04	30 29	7.9	+3 36	-38.3	" GW, 8.1
9	33	4027	8.5		33 35	8.1	-5 0	-37.2	
10	34	4196	7.8	8.16	38 36	8.2	+1 0	+5.5	
11	34	4199	7.8	8.42	39 41	8.3	+1 33	+34.0	
12	33	4065	8.2		41 39	8.3	+0 8	-51.3	
13	34	4193	8.6	8.51	43 40	8.3	+0 46	+15.1	
14	34	4198	8.7	8.56	45 41	8.4	+1 28	+5.1	
15	33	4083	8.0		49 49	8.6	+2 46	-18.4	
16	33	4080	8.5		51 45	8.6	+2 23	-14.1	(rr)
17	33	4056	8.4		53 51	8.7	-1 3	-9.8	
18	34	4186	8.8		63	8.9	+0 8	+33.3	
19	34	4195	8.5		65	9.0	+0 52	+40.7	
20					73 61	9.2	+0 47	+17.6	
21	34	4190	9.2	9.11	78 65	9.4	+0 36	+7.6	
22	33	4062	9.0		84 71	9.6	0 0	-15.1	
23	33	4071	9.1		84 71	9.6	+1 8	-11.0	
24	34	4185	9.5	9.64	87 74	9.7	+0 7	+7.6	
25	34	4205	9.0		89	9.7	+2 39	-4.2	
26	33	4073	9.3		93 75	9.8	+1 21	-14.6	
27	34	4197	8.6		95 76	9.9	+0 59	+21.5	
28	34	4173	9.5		95 77	9.9	-2 24	+10.7	dpl.
29	34	4191	9.2		100 78	10.0	+0 41	+16.1	
30	34	4204	9.3		103 80	10.1	+2 29	-6.7	
31	34	4200	9.5		103 82	10.1	+1 45	+15.7	
32	34	4176	9.4	9.97	103 82	10.1	-1 41	+0.7	
33	34	4181	9.5		103 84	10.2	-1 2	+7.2	
34	33	4042	9.4		106 85	10.2	-2 18	-21.8	
35	+34	4203	9.3		107 85	10.3	+2 16	-5.5	

Num.	BD.		HP.	Gradus	Magn.	$\Delta\alpha$	$\Delta\delta$	Notae
36	+33° 4067	9 <sup>M</sup> .3		107 88	10 <sup>M</sup> .3	+0 <sup>m</sup> 40 <sup>s</sup>	-26'.7	
37	33 4044	9.4		109 89	10.4	-2 16	-24.6	
38	34 4174	9.5		109 90	10.4	-2 6	+29.2	
39	33 4061	9.5		112 91	10.5	-0 1	- 9.4	
40	33 4064	9.4		116 91	10.6	+0 6	-24.2	
41	34 4202	9.5		116 92	10.6	+1 55	+19.2	dpl.
42	33 4075	9.4		116 92	10.6	+1 43	-25.1	
43	33 4063	9.5		117 93	10.6	+0 6	-28.2	
44	33 4068	9.4		118 95	10.7	+0 44	-21.7	
45	34 4175	9.4	10 <sup>M</sup> .72	118 95	10.7	-1 54	+ 8.2	
46	33 4060	9.5		118 96	10.7	-0 24	-25.9	
47	33 4049	9.5		118 98	10.7	-1 33	-16.3	
48	33 4058	9.5		120 98	10.8	-0 48	-12.1	
49	+33 4048	9.5		121 100	10.8	-1 33	-14.9	

\* Olim vocata T Cygni (Sch. II, 130). Vide Hartwig, Astr. Nachr. 3596.

7521

## VX Cygni

 $20^{\text{h}} 51^{\text{m}} 53^{\text{s}}$  (1855.0)  $+ 39^{\circ} 37'.2$ Max. =  $2414934^{\text{d}}97 + 20^{\text{d}}125 \text{ E.}$ 

Num.	BD.		HP.	Gradus	Magn.	$\Delta\alpha$	$\Delta\delta$	Notae
1	+40°	4364	4. <sup>M</sup> 0	4. <sup>M</sup> 04	4. <sup>M</sup> 0	-0 <sup>m</sup> 8 <sup>s</sup>	+59'.4	PD. GW, 4. <sup>M</sup> 2, v Cygni*
2	38	4321	6.4	6.54	6.5	+4 56	-40.6	" G+, 6.5**
3	39	4400	6.8	6.64	6.6	+2 32	+ 4.2	" GW, 6.8
4	40	4354	6.8	6.48	6.6	-2 56	+31.8	" W+, 7.0
5	40	4378	7.3	7.02	7.0	+2 9	+46.8	" WG-, 7.1
6	39	4368	7.2	7.02	7.0	-1 57	+ 7.6	" GW-, 7.5
7	40	4389	7.0	7.12	7.1	+4 4	+26.0	" GW, 7.4
8	38	4318	7.2	7.50	7.3	+4 25	-55.4	" GW-, 7.7*
9	40	4346	7.5	7.32	7.3	-3 37	+52.7	" W+, 7.7
10	39	4382	7.0	7.50	7.4	+0 13	-30.9	" W+, 7.8
11	38	4258	7.3	7.22	7.4	-5 7	-40.0	" GW, 7.8
12	38	4301	7.4	7.66	7.5	+1 2	-42.1	" GW-, 8.1
13	39	4413	7.7	7.77	7.7	+4 33	+ 7.5	
14	39	4386	7.7	7.76	7.7	+0 35	+ 5.7	
15	39	4408	8.0		7.8	+3 35	-11.9	
16	38	4254	8.0		7.9	-5 53	-46.4	
17	38	4277	8.0		7.9	-2 17	-57.4	
18	40	4374	8.1	8.07	7.9	+1 11	+31.1	
19	39	4421	8.0		7.9	+5 54	+ 3.5	
20	39	4385	8.5	8.14	8.0	+0 23	- 3.7	
21	39	4346	8.0		8.1	-5 56	-30.8	
22	38	4263	8.3		8.1	-4 1	-49.8	
23	39	4394	8.5		8.2	+1 50	- 7.2	
24	39	4403	8.0		8.2	+3 7	+ 9.0	
25	39	4389	8.2	8.48	8.4	+1 26	+19.5	
26	40	4369	8.2		8.5	+0 43	+43.3	
27	39	4371	8.5		8.6	-1 43	-33.1	
28	39	4418	8.3		8.7	+5 44	-11.7	
29	39	4391	8.9		8.7	+1 31	-18.2	
30	39	4384	8.7		8.7	+0 20	-27.9	
31	40	4382	8.4	8.62	8.8	+3 20	+30.2	
32	40	4362	8.6	8.87	8.8	-1 2	+28.9	
33	39	4401	9.1		8.9	+2 41	+ 1.3	
34	39	4383	8.9		9.1	+0 20	-25.6	
35	+39	4399	9.3		9.1	+2 24	+ 2.2	



Num.	BD.		HP.	Gradus	Magn.	$\Delta\alpha$	$\Delta\delta$	Notae
36	+39° 4381	8 <sup>M</sup> .8	9 <sup>M</sup> .37	86	9 <sup>M</sup> .3	+0 <sup>m</sup> 12 <sup>s</sup>	- 8'.0	
37	39 4370	9.0	9.50	91	9.4	-1 44	- 3.2	
38	39 4396	9.5		99	9.6	+2 4	- 0.9	
39	39 4365	9.2		100	9.6	-2 24	+11.0	
40	39 4364	9.1		102	9.7	-2 25	-29.3	
41	39 4380	9.1	9.75	104	9.8	+0 3	+16.2	
42	40 4376	9.4		106	9.9	+1 40	+25.4	
43	39 4369	9.4	9.77	106	9.9	-1 53	-11.1	
44	39 4372	9.4	10.05	109	10.0	-1 44	+11.1	
45	39 4392	9.5		110	10.0	+1 48	-24.9	
46	39 4393	9.4		111	10.0	+1 50	-28.6	dpl.
47	39 4362	9.3		114	10.1	-2 42	-26.1	
48	39 4388	9.4		115	10.2	+0 54	-18.4	
49	39 4397	9.5		115	10.2	+2 11	+20.4	
50	39 4398	9.5		117	10.2	+2 18	-17.4	
51	39 4377	9.5		(117)	10.2	-0 25	-25.0	
52	39 4367	9.4		121	10.3	-2 11	-21.3	dpl.
53	39 4387	9.5		123	10.4	+0 51	-10.3	
54	39 4390	9.5		125	10.5	+1 28	-13.6	
55	39 4373	9.5		127	10.6	-1 15	-14.9	
56	39 4376	9.4		127	10.6	-0 27	+18.8	
57	39 4375	9.5	10.52	130	10.7	-0 41	+ 3.2	
58	39 4374	9.5	10.69	132	10.8	-0 46	+ 8.4	
59				135	10.9	-0 36	0.0	
60	+39 4363	9.5		136	10.9	-2 28	+22.6	
61				148	11.4	-0 30	+ 0.2	dpl.
62			11.34	148	11.4	+0 9	+ 1.9	

\* Stella Num. 2 in Charta 7539, num. 1 in Charta 7563, num. 67 in Charta XV Seriei Vae.

\*\* AGC. dpl.

7539

## TX Cygni

 $20^{\text{h}} 54^{\text{m}} 47^{\text{s}}$  (1855.0) +  $42^{\circ} 2'.0$ Max. =  $2\ 415\ 673^{\text{d}}41 + 14^{\text{d}}726\ \text{E.}$ 

Num.	BD.		HP.	Gradus	Magn.	$\Delta\alpha$	$\Delta\delta$	Notae
1	+43°	3800	4. <sup>M</sup> 0	3. <sup>M</sup> 92	3. <sup>M</sup> 9	+4 <sup>m</sup> 52 <sup>s</sup>	+79'.3	PD. G, 3. <sup>M</sup> 9 $\xi$ Cygni
2	40	4364	4.0	4.04	4.1	-2 59	-85.5	„ GW, 4.2 „ *
3	41	3987	7.0	6.33	0	+3 41	-58.4	„ WG-, 6.6
4	41	3949	6.9	6.03	0	-1 37	-39.3	„ W+, 6.4
5	41	3956	6.5	6.51	5	-0 43	-16.3	„ W+, 6.8
6	42	3913	6.5	6.71	8	-3 45	+10.7	„ WG+, 6.8
7	42	3907	6.5	6.99	8	-4 36	+46.7	„ G, 6.7
8	42	3911	6.7	6.79	13	-3 51	+50.0	„ W+, 7.1
9	42	3915	7.8		20	-3 19	+17.8	
10	41	3932	6.9	6.89	25	-4 47	- 4.5	„ GW-, 7.3
11	41	3944	7.4	7.49	31	-2 37	- 8.9	„ G-, 7.4
12	41	3943	7.3	7.14	38	-2 43	-54.2	„ GW-, 7.5
13	41	3929	7.7		43	-5 14	-60.7	
14	43	3797	7.5	7.83	51	+3 55	+59.4	„ GW+, 7.9
15	42	3934	7.5	7.66	52	-0 6	+20.0	„ GW-, 7.9
16	41	3991	8.2		(54)	+4 26	- 9.8	
17	42	3932	8.1	8.29	59	-0 32	+28.1	
18	42	3931	8.1		65	-0 39	+41.8	
19	41	3993	8.3		(66)	+4 38	- 7.0	
20	42	3914	8.3		69	-3 39	+32.3	
21	42	3905	8.3		71	-4 45	+ 8.2	
22	41	3963	8.7	9.09	77	+0 22	-24.6	
23	42	3947	8.8		82	+2 4	+23.9	
24	42	3944	8.9		88	+1 56	+15.2	
25	41	3941	8.8		91	-2 58	-27.8	
26	42	3937	9.2	9.55	95	+0 50	+10.6	
27	41	3950	9.1	9.36	98	-1 34	- 7.9	
28	41	3954	9.2	8.98	98	-1 9	-13.0	
29	42	3918	9.4		103	-2 54	- 1.5	
30	42	3926	9.4	9.95	103	-1 22	+ 7.0	
31	41	3947	9.5		107	-1 59	-13.0	
32	42	3942	9.4		(109)	+1 49	+27.5	
33	41	3948	9.5		(109)	-1 45	-21.9	
34	42	3921	9.5		109	-2 10	+ 2.4	
35	+42	3920	9.5		110	-2 33	+14.0	

Num.	BD.		HP.	Gradus	Magn.	$\Delta\alpha$	$\Delta\delta$	Notae
36	+41°	3952	9. <sup>M</sup> 3	114	10. <sup>M</sup> 2	-1 <sup>m</sup> 16 <sup>s</sup>	- 6'.9	
37	42	3943	9.4	115	10.3	+1 53	+ 5.1	
38	41	3964	9.4	119	10.4	+0 39	- 3.2	
39	41	3953	9.4	121	10.5	-1 10	- 2.2	
40	41	3958	9.5	122	10.6	-0 33	-23.1	
41	42	3940	9.5	122	10.6	+1 21	+25.6	
42	42	3941	9.5	123	10.6	+1 22	+ 9.3	
43	42	3948	9.4	(124)	10.7	+2 15	0.0	
44				127	10.8	-1 32	+25.5	**
45				128	10.9	-1 39	+27.0	**
46	41	3967	9.5	(129)	10.9	+2 5	- 2.0	
47	42	3929	9.4	130	11.0	-0 54	+19.7	
48	42	3930	9.5	133	11.1	-0 52	+21.1	
49	42	3938	9.4	135	11.2	+0 59	+ 5.7	
50	+41	3968	9.5	136	11.2	+2 11	- 5.8	

\* Stella num. 1 in Charta 7521, num. 1 in Charta 7563, num. 67 in Charta XV Seriei Vae.

\*\* BD. + 42° 3924, 9.<sup>M</sup>5.

7563

## VY Cygni

20<sup>h</sup> 58<sup>m</sup> 44<sup>s</sup> (1855.0) + 39° 23'.9Max. = 2416 370<sup>d</sup>88 + 7<sup>d</sup>857 E.

Num.	BD.		HP.	Gradus	Magn.	$\Delta\alpha$	$\Delta\delta$	Notae
1	+40°	4364	4. <sup>M</sup> 0	4. <sup>M</sup> 04	4. <sup>M</sup> 0	-7 <sup>m</sup> 0 <sup>s</sup>	+72'.4	PD. GW, 4. <sup>M</sup> 2, $\nu$ Cygni *
2	38	4321	6.4	6.54	6.5	-1 56	-27.9	„ G+, 6.5,
3	39	4400	6.8	6.70	6.7	-4 21	+17.2	„ GW, 6.8
4	38	4306	6.5	6.69	0	-4 35	-68.5	„ WG, 7.1
5	40	4389	7.0	7.12	6	-2 48	+39.0	„ GW, 7.4
6	40	4378	7.3	7.02	7	-4 44	+59.7	„ WG-, 7.1
7	38	4318	7.2	7.50	13	-2 28	-42.4	„ GW-, 7.7; AGC. dpl. 1''
8	39	4408	8.0		21	-3 17	+ 1.1	
9	39	4421	8.0	8.28	24	-0 58	+16.5	
10	39	4413	7.7	8.14	26	-2 20	+20.5	
11	39	4440	8.3		28	+2 35	+20.5	
12	38	4341	8.2		30	+1 33	-38.9	
13	39	4447	8.1		32	+4 3	-18.6	
14	39	4403	8.0		34	-3 46	+21.9	
15	39	4394	8.5		36	-5 3	+ 5.7	
16	39	4418	8.3	8.80	38	-1 9	+ 1.3	
17	40	4382	8.4		39	-3 33	+43.2	
18	39	4438	8.7		39	+2 32	+ 4.8	
19	38	4353	8.4		41	+2 51	-28.8	
20	40	4402	8.5		42	+0 46	+42.4	
21	39	4420	8.6	9.05	45	-1 6	+25.5	
22	40	4385	9.1		45	-3 7	+42.4	
23	39	4427	8.6	9.16	46	+0 45	+22.3	
24	39	4410	9.1		46	-2 37	+19.3	
25	38	4335	9.0		46	+0 33	-37.0	
26	39	4428	8.6		46	+0 51	+26.5	
27	38	4356	8.9		48	+3 8	-25.1	
28	40	4397	9.0		52	-0 34	+42.2	
29	39	4441	9.0		56	+2 50	+28.3	
30	39	4434	9.1	9.74	59	+1 40	+18.7	
31	39	4414	9.1	9.72	59	-1 51	+10.4	
32	38	4320	9.5		59	-1 57	-27.7	
33	38	4340	9.1	9.55	63	+1 27	-29.6	
34	39	4412	9.3	9.92	66	-2 28	+24.5	
35	+39	4435	9.3	10.08	67	+1 48	+ 2.2	

Num.	BD.		HP.	Gradus	Magn.	$\Delta\alpha$	$\Delta\delta$	Notae
36	+39° 4430	9. <sup>M</sup> 5	10. <sup>M</sup> 17 10.38	67	10. <sup>M</sup> 1	+1 <sup>m</sup> 16 <sup>s</sup>	- 0'8	
37	39 4422	9.4		70	10.2	-0 4	+27.0	
38	39 4419	9.5		73	10.4	-1 9	+ 5.4	
39	38 4326	9.5		75	10.5	-0 55	-29.8	
40	39 4424	9.5		76	10.5	+0 15	-12.3	
41	39 4426	9.5	10.76	77	10.6	+0 40	+10.1	
42	39 4437	9.5		77	10.6	+2 29	-23.5	
43	39 4417	9.5		78	10.6	-1 22	-23.9	
44				79	10.7	+1 54	-29.6	
45	39 4436	9.5		79	10.7	+2 16	-22.8	
46			11.02	79	10.7	+1 29	+16.2	
47	39 4431	9.5		80	10.7	+1 20	+ 7.6	
48	39 4425	9.5		81	10.8	+0 26	+ 1.0	
49	39 4433	9.5		83	10.8	+1 33	-18.1	
50				85	10.9	-0 50	- 8.3	
51	38 4347	9.5	11.02	85	10.9	+1 57	-27.2	
52	39 4416	9.5		88	11.0	-1 24	-12.6	
53				89	11.1	-0 15	- 4.4	
54	+39 4432	9.5		92	11.2	+1 36	+14.4	
55				94	11.4	-0 17	+ 0.1	

\* Stella num. 1 in Charta 7521, num. 2 in Charta 7539, num. 67 in Charta XV Seriei V<sup>ac</sup>.

## RS Capricorni

20<sup>h</sup> 59<sup>m</sup> 9<sup>s</sup> (1855.0) — 17° 0'.0

Variatio ignota.

Num.	BD.		HP.	Gradus	Magn.	$\Delta\alpha$	$\Delta\delta$	Notae
1	-17° 6174	4. <sup>M</sup> 0	4. <sup>M</sup> 19		4. <sup>M</sup> 2	-1 <sup>m</sup> 21 <sup>s</sup>	-48'.4	θ Capricorni
2	17 6193	7.0	6.88		6.9	+2 9	-11.9	
3	16 5797	7.3	7.29	0	7.2	-0 5	+27.0	
4	17 6167	7.7	7.23	2	7.3	-2 26	-44.2	
5	16 5810	7.2	7.38	8	7.4	+2 55	+42.9	
6	16 5798	7.3	7.49	10	7.5	-0 2	+40.7	
7	16 5800	7.7	7.64	13	7.6	+0 44	+47.8	
8	17 6189	8.3	8.06	25	8.0	+0 57	-18.4	
9	17 6196	8.3		29	8.1	+3 7	-32.5	
10	16 5778	8.3		32	8.2	-2 55	- 0.1	
11	16 5792	8.2		35	8.3	-0 26	+51.0	
12	16 5780	8.6		39	8.4	-2 43	+47.5	
13	16 5816	8.5		41	8.5	+4 8	+23.3	
14	16 5804	8.5	8.65	46	8.7	+1 56	+15.6	
15	16 5785	9.0		49	8.8	-2 11	+12.6	
16	16 5779	8.7		52	8.8	-2 53	+38.2	
17	17 6184	9.0	8.83	55	9.0	+0 12	- 3.7	
18	16 5794	8.9		58	9.1	-0 21	-31.7	
19	17 6178	9.1	9.36	63	9.2	-0 35	- 7.1	
20	17 6175	9.0	9.38	66	9.3	-0 56	-24.6	
21	17 6170	9.0		69	9.4	-1 42	-36.3	
22	16 5791	9.3	9.93	75	9.6	-0 39	+21.0	
23	17 6186	9.2	9.66	78	9.7	+0 39	- 2.2	
24	17 6173	9.4	9.69	79	9.7	-1 25	-17.6	
25	16 5803	9.4		82	9.8	+1 35	+ 4.2	
26	16 5789	9.4		84	9.9	-1 24	+15.9	
27	16 5796	9.8		85	10.0	-0 16	+24.0	
28	16 5793	9.6		86	10.0	-0 23	+22.7	
29	16 5788	9.6		88	10.1	-1 39	+ 7.8	
30	17 6188	9.8		88	10.1	+0 54	- 5.9	
31	16 5799	9.8		93	10.2	+0 14	+12.0	
32	17 6185	9.8		94	10.3	+0 19	- 5.2	
33	17 6176	9.8	10.10	94	10.3	-0 54	- 7.1	
34	17 6183	9.5	10.35	96	10.3	+0 11	- 7.0	
35	17 6177	9.5		96	10.3	-0 39	- 7.1	
36	17 6179	10		99	10.4	-0 33	-18.8	
37	17 6172	10		100	10.5	-1 33	-29.4	
38	17 6171	10		103	10.6	-1 35	-26.1	
39	17 6187	10		106	10.7	+0 52	-28.7	
40	-16 5805	10		110	10.8	+1 58	+20.4	

7609

## T Cephei

21<sup>h</sup> 7<sup>m</sup> 37<sup>s</sup> (1855.0) + 67° 54'.0Max. = 2 405 359<sup>d</sup> + 387<sup>d</sup> E.

Num.	BD.		HP.	Gradus		Magn.	$\Delta\alpha$	$\Delta\delta$	Notae
1	+69° 1152	6. <sup>M</sup> 5	6. <sup>M</sup> 80	0		6. <sup>M</sup> 7	+ 4 <sup>m</sup> 28 <sup>s</sup>	+91'.7	PD. WG+, 6. <sup>M</sup> 9
2	68 1170	6.5	7.07	4	0	6.9	-11 58	+35.2	„ G-, 7.0
3	67 1288	7.0	6.68	11	5	7.0	- 1 53	-14.1	„ GW-, 7.2 *d
4	67 1283	6.8	7.12	17	12	7.2	- 7 51	-19.0	„ GW+, 7.6 **e
5	67 1279	7.2	7.78	27	19	7.4	-11 39	-42.6	„ G-, 7.8
6	67 1299	7.5	7.69	34	34	7.7	+ 6 1	- 8.9	„ GW, 8.1 *f
7	68 1188	8.2	8.12	41	41	7.9	- 2 12	+ 7.6	*h
8	67 1303	8.0		48	52	8.2	+ 8 14	+ 3.6	
9	67 1295	7.8	8.18	51	54	8.3	+ 3 38	-20.6	*g
10	68 1180	8.8		59	66	8.4	- 3 21	+46.7	
11	68 1195	8.5		66	70	8.7	+ 6 28	+24.7	
12	68 1174	8.5		71	72	8.8	- 9 19	+51.2	
13	67 1285	8.8	8.78	74	73	8.9	- 4 32	-30.7	*k
14	68 1186	9.0	9.18	79	76	9.1	- 2 34	+ 9.5	*l
15	67 1293	9.0		85	83	9.2	+ 1 0	-30.0	
16	67 1294	9.2	9.65	90	93	9.4	+ 1 56	- 5.1	*m
17	68 1187	9.1		94	93	9.7	- 2 32	+19.6	
18	67 1298	9.1		94	94	9.7	+ 5 58	- 8.7	
19	68 1181	9.5		98	96	9.8	- 3 7	+21.6	
20				98	96	9.8	+ 2 24	-27.3	
21	68 1183	9.3		102	100	10.0	- 2 52	+ 7.3	
22	67 1296	9.4		107	100	10.0	+ 4 15	+ 1.1	
23	67 1292	9.4	10.10	109	102	10.1	+ 0 55	+ 2.9	*n
24				113	103	10.2	+ 2 20	+ 1.6	
25	67 1286	9.3		113	104	10.2	- 3 28	- 6.3	
26	68 1192	9.5		115	107	10.3	+ 1 46	+18.6	
27			10.50	118	109	10.4	- 1 33	- 3.0	*o
28				121	111	10.5	+ 1 13	-11.9	
29				127	115	10.7	+ 3 1	+12.0	dpl.
30	68 1193	9.5		128	116	10.8	+ 2 12	+25.6	
31	+67 1290	9.5	11.06	138	122	11.1	- 0 55	+ 1.9	*p

\* HCO. vol. XXXVII p. 10.

\*\* In neb. NGC. 7023. De duabus stellis variabilibus in hac nebula vide Pickering, Prov. Cat., 1903, no. 210067.

7783

## RU Cygni

21<sup>h</sup> 35<sup>m</sup> 48<sup>s</sup> (1855.0) +53° 40'.0Periodus (396<sup>d</sup>?) irregularis.

Num.	BD.		HP.	Gradus		Magn.	$\Delta\alpha$	$\Delta\delta$	Notae
1	+54°	2595	6 <sup>M</sup> .0	6 <sup>M</sup> .16	0	6 <sup>M</sup> .2	+0 <sup>m</sup> 6 <sup>s</sup>	+32'.8	PD. WG, 6 <sup>M</sup> .2
2	53	2659	6.5	6.20	2	6.3	-3 0	-16.7	„ WG+, 6.3
3	53	2690	6.8	7.15	16	7.0	+2 16	+14.1	„ WG, 7.1
4	52	3003	6.5	7.06	0 20	7.1	-2 5	-44.6	„ W+, 7.2
5	53	2647	7.4	7.46	13 25	7.4	-6 49	+ 0.1	„ W, 7.6
6	53	2680	7.6		15 28	7.5	-0 39	-21.3	
7	53	2689	7.6		19 35	7.7	+2 10	-33.6	
8	52	2990	7.3	7.52	21 33	7.7	-3 34	-56.6	„ GW-, 7.9
9	53	2671	8.0		26 39	8.0	-1 36	-32.6	
10	53	2655	7.5	7.80	32 35	8.0	-3 38	+19.1	„ W, 8.0
11	53	2694	8.2	8.26	30 43	8.1	+3 21	- 2.8	
12	54	2583	7.5	7.96	39 42	8.3	-3 28	+47.8	
13	53	2651	8.0		41 43	8.3	-5 6	-38.5	
14	54	2607	8.1		37 47	8.4	+2 22	+52.7	
15	54	2586	8.2		41 47	8.4	-1 46	+24.5	
16	52	3005	8.1		43 44	8.4	-0 53	-55.5	
17	54	2581	7.8	8.51	44 46	8.5	-4 0	+29.9	
18	54	2576	8.3		44 46	8.5	-5 41	+22.0	
19	52	2992	8.3		44 48	8.5	-3 28	-55.3	
20	54	2585	8.5		45 50	8.6	-2 43	+41.8	
21	54	2573	8.5		48 53	8.7	-6 13	+51.6	
22	53	2673	8.4	8.82	48 55	8.8	-1 28	-38.6	
23	53	2683	8.9	8.82	48 54	8.8	-0 16	-17.7	
24	54	2575	8.5		52 54	8.8	-5 58	+46.4	
25	54	2598	8.5	8.97	55 57	8.9	+0 18	+44.5	dpl.
26	54	2603	9.1		55	8.9	+1 31	+30.2	
27	53	2672	9.2		56 57	8.9	-1 31	+ 6.8	
28	53	2687	8.8	9.04	56 59	9.0	+1 29	-15.5	
29	53	2677	8.8		59 60	9.1	-1 8	+18.2	
30	53	2667	9.3	9.39	66 64	9.3	-2 29	-22.8	
31	53	2674	9.0		68 67	9.4	-1 28	- 9.6	
32	53	2661	9.4		71 67	9.5	-2 39	-25.6	
33	54	2591	9.1		71 73	9.6	-0 44	+27.3	
34	53	2665	9.3		72 71	9.6	-2 31	-28.8	
35	+53	2686	9.3	9.90	75 72	9.7	+1 24	-12.2	



Num.	BD.		HP.	Gradus	Magn.	$\Delta\alpha$	$\Delta\delta$	Notae
36	+53° 2666	9 <sup>M</sup> .5		76	9 <sup>M</sup> .7	-2 <sup>m</sup> 28 <sup>s</sup>	-32'.0	
37	53 2660	9.5		79 73	9.8	-2 59	-22.5	
38	53 2691	9.5		79 74	9.8	+2 45	+ 8.2	
39	53 2678	9.5		79 76	9.9	-0 54	-15.7	
40	53 2663	9.4		82 75	9.9	-2 36	+ 6.8	
41	53 2658	9.5		82 76	9.9	-3 1	-24.9	
42				82 79	10.0	-2 26	+13.9	
43	53 2688	9.5		82 79	10.0	+1 52	+ 9.7	
44	54 2599	9.5		84 79	10.0	+0 56	+26.7	
45				85 80	10.1	-2 55	+14.9	
46				88 80	10.1	-1 7	-27.8	
47	53 2682	9.5	10 <sup>M</sup> .07	88 82	10.2	-0 21	- 3.0	
48	53 2668	9.5		91 82	10.3	-2 8	-23.9	
49	53 2676	9.5		92 82	10.3	-1 4	-26.0	
50	53 2692	9.5		92 83	10.3	+3 17	+15.9	
51	53 2662	9.3		92 85	10.4	-2 37	+18.6	dpl.
52	53 2670	9.5		96 84	10.6	-1 46	-28.2	dpl.
53	+53 2685	9.5	10.64	96 87	10.7	+0 46	- 7.2	

7795

## RV Cygni

 $21^{\text{h}} 37^{\text{m}} 17^{\text{s}}$  (1855.0)  $+37^{\circ} 21'.3$ Periodus irregularis (425<sup>d</sup>?).

Num.	BD.		HP.	Gradus		Magn.	$\Delta\alpha$	$\Delta\delta$	Notae
1	+37° 4408	6 <sup>M</sup> .0	5 <sup>M</sup> .62	0	0	5 <sup>M</sup> .5	+0 <sup>m</sup> 9 <sup>s</sup>	+16'.0	PD. GW, 5 <sup>M</sup> 9, 79 Cygni
2	37 4427	6.3	5.80	10	14	6.1	+5 12	+37.4	„ W+, 6.2
3	37 4410	7.2	6.87	21	33	6.8	+0 21	+17.2	„ W+, 7.2
4	36 4679	7.7		26	37	7.0	+3 28	-21.8	(gw)
5	37 4404	8.0	7.48	32	48	7.2	-0 21	- 6.7	
6	36 4651	7.5	8.26	36	60	7.7	-1 9	-27.9	„ WG-, 8.0
7	37 4405	8.2	8.13	45	72	8.1	-0 18	+10.2	
8	36 4674	8.0		51		8.3	+2 16	-37.2	
9	36 4675	8.0		55		8.5	+2 54	-37.9	
10	36 4680	8.0		58		8.6	+3 46	-42.8	
11	37 4418	8.5	8.80	61	88	8.7	+2 0	+18.4	
12	36 4671	8.3		66	94	8.9	+1 39	-29.3	
13	37 4401	8.8	8.85	67	94	8.9	-0 30	+23.7	
14	37 4396	9.1		75	106	9.3	-1 53	-14.9	
15	37 4416	9.1		77	109	9.4	+1 50	+25.3	
16	36 4660	9.0		78	111	9.4	-0 21	-26.8	
17				88	115	9.7	-0 57	+21.8	
18	36 4653	9.4		89	116	9.7	-1 1	-21.5	
19	37 4400	9.3	9.37	89	116	9.7	-0 39	+ 3.3	
20	37 4413	9.5		90	117	9.7	+0 51	+25.3	
21				92	118	9.8	+1 20	+ 0.1	var?
22	36 4673	9.4		92	119	9.8	+2 0	-26.5	
23	37 4399	9.1	9.70	94	119	9.8	-0 48	- 9.1	
24	37 4409	9.3	9.96	98	120	9.9	+0 12	+ 7.0	
25	37 4406	9.3	10.08	100	121	10.0	-0 16	+13.9	
26				101	122	10.0	+0 11	+20.9	
27	36 4661	9.2		102	123	10.0	-0 15	-29.6	BD.- 0 <sup>m</sup> 18 <sup>s</sup>
28				104	123	10.1	+0 2	+17.9	
29	37 4397	9.5		104	124	10.1	-1 37	-21.1	
30				104	125	10.1	+0 7	+20.1	
31	37 4417	9.4		107	126	10.2	+1 52	+22.8	
32	37 4403	9.5	10.32	112	127	10.2	-0 24	+ 5.1	
33				113	128	10.3	-0 34	- 0.3	
34	37 4395	9.5		115	130	10.3	-2 18	-13.3	
35	+37 4402	9.4		115	133	10.4	-0 29	-17.1	

Num.	BD.		HP.	Gradus	Magn.	$\Delta\alpha$	$\Delta\delta$	Notae
36				116 135	10 <sup>M</sup> .5	-1 <sup>m</sup> 45 <sup>s</sup>	-17'.7	
37				119 137	10.5	-1 11	-16.8	
38				120 142	10.6	+0 33	-19.5	
39	+36° 46 52	9 <sup>M</sup> .5		120 145	10.7	-1 3	-26.1	
40	37 44 14	9.5		122 149	10.8	+1 1	-12.7	
41	+37 44 15	9.5		123 153	10.9	+1 35	-15.8	

7846

## VZ Cygni

 $21^{\text{h}} 45^{\text{m}} 53^{\text{s}}$  (1855.0)  $+42^{\circ} 27'.3$ Min. I. =  $2\ 417\ 060^{\text{d}}.1 + 9^{\text{d}}.727\ \text{E.}$ 

Num.	BD.		HP.	Gradus	Magn.	$\Delta\alpha$	$\Delta\delta$	Notae	
1	+42°	4204	6 <sup>M</sup> .5	6 <sup>M</sup> .43		6 <sup>M</sup> .4	-5 <sup>m</sup> 23 <sup>s</sup>	- 4'.0	PD. GW, 6 <sup>M</sup> .7
2	43	4061	6.8	7.32		7.3	-1 28	+45.5	„ WG, 7.2
3	42	4260	7.0	7.38	0	7.3	+6 27	+ 5.8	„ GW, 7.7
4	42	4226	7.8	7.67	5	7.5	-1 31	-16.2	
5	43	4048	7.2	7.58	6	7.6	-3 56	+53.0	„ W+, 7.8
6	41	4291	7.3	7.83	8	7.6	+0 11	-46.8	„ GW, 7.9
7	42	4257	7.5	7.62	11	7.8	+6 17	+ 0.5	„ GW, 8.0
8	43	4074	8.0		12	7.8	+0 33	+38.9	
9	42	4250	7.5	8.10	13	7.9	+3 34	+ 2.0	„ G-, 8.0
10	42	4256	7.3	7.82	14	7.9	+5 55	+ 4.6	„ GW, 7.9
11	41	4277	7.5	7.96	15	8.0	-2 36	-46.3	„ WG-, 8.0
12	41	4274	7.5	8.09	18	8.1	-3 33	-47.3	„ WG-, 8.0
13	43	4084	7.8		20	8.2	+2 51	+54.7	
14	42	4247	8.3		23	8.3	+3 11	+11.4	
15	41	4293	8.2		24	8.4	+0 23	-29.0	
16	42	4207	8.0		26	8.5	-4 37	+11.7	
17	41	4275	7.9		30	8.6	-3 31	-58.1	
18	41	4309	8.2		30	8.6	+3 0	-27.9	
19	41	4299	8.2		30	8.6	+0 47	-43.8	
20	43	4060	8.3		30	8.6	-1 40	+50.1	
21	43	4075	8.2		30	8.6	+0 52	+38.3	
22	42	4210	8.6		31	8.7	-4 8	-24.3	
23	41	4294	9.0		33	8.8	+0 31	-29.7	
24	42	4230	8.7	8.80	34	8.8	-0 35	-17.5	
25	43	4089	8.8		34	8.8	+4 0	+49.3	
26	42	4254	8.5		35	8.9	+4 20	+11.0	
27	43	4072	8.5		36	9.0	+0 14	+40.2	
28	42	4249	8.0		37	9.0	+3 21	+ 5.6	
29	41	4266	8.2		38	9.0	-4 47	-39.1	
30	42	4246	8.0		39	9.1	+2 51	+ 5.7	
31	42	4220	9.2		42	9.2	-2 14	- 8.1	
32	42	4225	9.1	9.28	44	9.3	-1 49	+ 3.3	
33	42	4208	8.9		44	9.3	-4 27	+12.2	
34	42	4218	8.8		47	9.5	-2 37	-18.9	
35	+42	4241	8.8		47	9.5	+2 2	+20.8	

Num.	BD.		HP.	Gradus	Magn.	$\Delta\alpha$	$\Delta\delta$	Notae
36	+42° 4232	9 <sup>M</sup> .1	9 <sup>M</sup> .72	47	9 <sup>M</sup> .5	-0 <sup>m</sup> 19 <sup>s</sup>	+23'.0	dpl.
37	42 4243	9.1		48	9.5	+2 18	- 8.4	
38	42 4244	9.2		51	9.7	+2 23	- 1.4	
39	42 4240	9.2		52	9.7	+1 59	+25.7	
40	42 4222	9.4		53	9.8	-2 5	+ 0.3	
41	42 4221	9.3		53	9.8	-2 8	- 1.7	var. ? *
42	42 4223	9.4		55	9.9	-2 4	+ 6.8	
43	42 4234	8.5	9.82	55	9.9	+0 24	-23.6	
44	42 4239	9.5		57	10.0	+1 44	-24.9	
45	42 4238	9.5		58	10.0	+1 41	-21.4	
46	42 4237	9.4		63	10.3	+1 36	+16.7	dpl.
47	42 4236	9.4		64	10.3	+1 33	+16.0	
48	42 4242	9.3		64	10.3	+2 15	-11.2	
49	42 4245	9.5		66	10.4	+2 26	+ 7.3	
50	42 4229	9.4	10.19	68	10.5	-0 54	- 2.8	
51	+42 4228	9.5	10.86	72	10.7	-0 55	+12.0	BD. +8'.6
52			10.63	73	10.8	-0 17	+19.0	**
WY	Cygni	var.				-2 58	+66.0	9 <sup>M</sup> -13 <sup>M</sup>

\* Gradus determinati 21<sup>a</sup> et 26<sup>a</sup> Augusti, 1905. Aliae observationes a Dr. Küstner nobis communicatae sunt:

30<sup>a</sup> Julii 1905, Dr. Clemens: 9<sup>M</sup>.5 et 10<sup>M</sup>.0,

1869, AGZ. Bonn: 9<sup>M</sup>.2 et 9<sup>M</sup>.1,

1856, BD. 9<sup>M</sup> et 8<sup>M</sup> et 8<sup>M</sup>.5, quarum medium: 8<sup>M</sup>.5.

\*\* Sequitur stellam tenuiorem BD. +42°4231, 4<sup>n</sup>.

8182

## U Lacertae

22<sup>h</sup> 41<sup>m</sup> 46<sup>s</sup> (1855.0) +54° 23'.7

Variatio ignota.

Num.	BD.		HP.	Gradus	Magn.	$\Delta\alpha$	$\Delta\delta$	Notae
1	+55°	2820	5 <sup>M</sup> .9	5 <sup>M</sup> .56	5 <sup>M</sup> .5	+2 <sup>m</sup> 2 <sup>s</sup>	+44'.5	PD. G-, 5 <sup>M</sup> .5
2	53	2993	6.0	6.08	6.1	+1 2	-44.7	„ GW-, 6.4
3	54	2856	7.1	6.78	0	-1 14	-17.1	„ W+, 7.1
4	53	2963	7.4	7.36	9	-4 49	-23.9	„ G-, 7.4
5	54	2867	8.0	7.53	16	+2 2	-18.8	
6	53	2961	7.3	7.36	20	-5 18	-54.3	„ W+, 7.7
7	53	2987	7.6		24	-0 33	-24.4	
8	53	2958	8.0		26	-6 6	-46.0	
9	53	2973	8.4		31	-2 24	-26.3	
10	54	2879	8.5		31	+6 29	+14.7	
11	55	2800	8.3		34	-3 4	+42.1	
12	54	2865	8.5	8.47	38	+0 59	- 2.0	
13	53	2999	8.4	8.47	42	+1 58	-28.9	
14	54	2874	8.4		45	+4 37	+31.2	
15	55	2814	8.7		48	+0 42	+38.5	
16	54	2846	8.5		48	-3 32	+26.0	
17	54	2851	8.9		49	-2 16	-12.5	
18	54	2849	9.0		52	-2 34	-11.2	
19	54	2852	9.0		52	-1 44	-17.6	
20	54	2843	8.7		55	-4 0	+11.2	
21	54	2850	9.3		58	-2 32	+17.2	
22	54	2859	9.1	8.81	58	-1 7	- 9.8	
23	54	2854	8.8	9.00	60	-1 38	+ 0.4	
24	54	2858	8.9		62	-1 8	-14.3	
25	54	2848	9.3		64	-2 56	+ 3.4	
26	54	2855	9.1		66	-1 19	-10.2	
27	54	2864	9.0	9.16	67	+0 40	-11.5	
28	54	2860	9.3		68	-1 6	-11.7	
29	53	2974	9.0		72	-2 9	-28.2	
30	54	2862	9.2	9.22	74	+0 3	-22.7	
31	54	2857	9.4		77	-1 8	-23.4	
32	53	2986	9.2		79	-0 51	-24.1	
33	54	2868	9.5		(80)	+2 43	- 6.8	var?
34	53	2970	9.4		80	-2 56	-29.5	
35	+54	2866	9.5	9.88	80	+1 11	+28.5	

Num.	BD.		HP.	Gradus	Magn.	$\Delta\alpha$	$\Delta\delta$	Notae
36	+54° 2861	9. <sup>M</sup> 4	9. <sup>M</sup> 87	81	9. <sup>M</sup> 8	-1 <sup>m</sup> 3 <sup>s</sup>	- 8'.9	
37	54 2870	9.3		83	9.8	+2 58	+25.5	
38	54 2869	9.5		91	10.1	+2 56	-11.6	
39	+54 2853	9.5	10.28	96	10.3	-1 38	+22.8	
V	Lacertae	var.				+0 57	+69.7	Ch. 8187 Seriei IV <sup>ae</sup>

8187

## V Lacertae

22<sup>h</sup> 42<sup>m</sup> 44<sup>s</sup> (1855.0) +55° 33'.4

Variatio ignota.

Num.	BD.		HP.	Gradus	Magn.	$\Delta\alpha$	$\Delta\delta$	Notae	
1	+55°	2820	5 <sup>M</sup> .9	5 <sup>M</sup> .56		5 <sup>M</sup> .5	+1 <sup>m</sup> 5 <sup>s</sup>	-25'.2	PD. G-, 5 <sup>M</sup> .5
2	55	2837	6.8	7.01	0	6.8	+5 35	+ 0.5	„ WG, 7.0
3	55	2797	7.0	6.86	3	6.9	-5 20	+ 5.4	„ GW-, 7.1
4	55	2830	7.1	7.31	8	7.0	+3 54	+23.0	„ WG-, 7.6
5	55	2831	7.7		13	7.1	+3 54	+11.8	
6	55	2850	7.0	7.06	15	7.1	+7 27	+ 7.4	„ GW, 7.5
7	55	2855	7.5	7.34	20	7.4	+8 18	+ 9.9	„ GW-, 7.8
8	56	2851	7.9		36	7.9	-3 14	+49.3	
9	56	2895	8.6		41	8.1	+5 34	+29.6	
10	54	2879	8.5		45	8.2	+5 33	-55.0	
11	56	2858	8.0	8.19	45	8.2	-1 42	+30.8	
12	55	2800	8.3		48	8.4	-4 0	-27.6	
13	55	2817	8.7		50	8.4	+0 25	+ 6.4	
14	55	2827	8.2		52	8.5	+3 23	+20.8	
15	54	2874	8.4		54	8.6	+3 40	-38.5	
16	56	2871	9.0		56	8.6	+0 21	+35.6	
17	56	2872	8.5	8.68	57	8.7	+0 27	+30.4	
18	55	2803	9.1		59	8.8	-3 24	+13.6	
19	55	2814	8.7		60	8.8	-0 14	-31.2	
20	54	2846	8.5		62	8.9	-4 29	-43.7	
21	55	2813	8.8	8.93	65	9.0	-1 3	+24.2	
22	55	2809	9.0		65	9.0	-1 34	+ 6.7	
23	55	2819	9.1	9.36	68	9.2	+1 2	- 3.4	
24	55	2805	9.1		72	9.3	-2 38	+19.5	
25	55	2816	9.0	9.29	72	9.3	+0 22	+26.6	
26	55	2807	9.2		74	9.4	-2 17	+11.9	
27	55	2811	9.4	9.46	75	9.4	-1 20	+ 8.6	
28	55	2804	9.3		76	9.4	-2 40	- 1.1	
29	55	2821	9.5	9.63	77	9.5	+1 26	+ 0.9	
30	55	2824	9.0		79	9.6	+2 9	- 7.7	
31	55	2812	8.9		79	9.6	-1 23	-18.5	
32	55	2825	9.1		79	9.6	+3 8	- 9.4	
33	55	2826	9.2		80	9.6	+3 17	-14.5	
34	55	2823	9.2		82	9.7	+1 52	- 9.8	
35	+56	2867	9.2		82	9.7	-0 52	+29.5	



Num.	BD.		HP.	Gradus	Magn.	$\Delta\alpha$	$\Delta\delta$	Notae
36				84	9 <sup>M</sup> .8	-2 <sup>m</sup> 40 <sup>s</sup>	-11'.9	
37	+55° 2818	9 <sup>M</sup> .5	9 <sup>M</sup> .72	86	9.8	+0 49	+ 1.0	
38	55 2808	9.5		86	9.8	-2 10	+ 0.2	
39	55 2806	9.5		90	10.0	-2 36	+ 5.0	
40	55 2822	9.5		90	10.0	+1 37	+15.7	
41	55 2802	9.5		90	10.0	-3 30	-15.6	
42	55 2810	9.5		94	10.2	-1 28	-28.4	
43	55 2828	9.5		97	10.3	+3 26	- 0.3	
	+56 2874	9.4	10.08			+1 0	+28.8	*
U	Lacertae	var.				-0 57	-69.7	Ch. 8182 Seriei IV <sup>ae</sup>

\* Non in Charta; composita ex duabus.

8369

## W Pegasi

 $23^h 12^m 34^s$  (1855.0)  $+ 25^\circ 29'.1$ Max. =  $2\ 413\ 485^d + 341^d E?$ 

Num.	BD.		HP.	Gradus		Magn.	$\Delta\alpha$	$\Delta\delta$	Notae
1	+25° 4927	6 <sup>M</sup> .6	6 <sup>M</sup> .55	0		6 <sup>M</sup> .5	+2 <sup>m</sup> 46 <sup>s</sup>	-21'.6	PD. WG+, 6 <sup>M</sup> .5 (rg) ,, GW, 6.9
2	25 4924	6.3	6.64	6		6.6	+2 17	+20.0	
3	25 4917	8.0	8.19	0	37	8.0	-0 18	+12.3	
4	24 4764	8.3	8.22	5	40	8.2	+3 58	-58.7	
5	24 4752	8.0	8.41	8	43	8.4	+0 26	-50.6	
6	24 4740	8.7		18	55	8.8	-3 4	-44.3	
7	25 4907	8.6	8.81	21	58	8.9	-3 16	- 4.1	
8	24 4739	9.2		25	61	9.2	-3 18	-48.3	
9	25 4922	8.8	8.88	25	61	9.2	+1 3	+27.4	
10	25 4914	9.0		34	72	9.7	-1 19	+29.5	
11	24 4750	9.0		37	73	9.8	-0 39	-41.2	
12	24 4762	9.1		37	76	9.9	+3 29	-30.6	
13	26 4602	9.3		43	77	10.0	-0 46	+32.2	
14	25 4916	9.4		46	80	10.2	-0 35	+ 0.2	
15	25 4913	9.2	10.03	49	80	10.3	-1 20	+19.5	
16	25 4918	9.4	10.40	52	81	10.4	-0 4	- 7.4	
17	25 4923	9.5		52	83	10.4	+1 6	- 4.0	
18	25 4915	9.3	10.75	55	85	10.6	-0 54	-27.7	
19	25 4912	9.4		55	86	10.6	-1 50	+13.3	
20			10.78	57	88	10.7	-0 19	-15.7	
21	25 4921	9.5	11.07	62	88	10.8	+0 19	-22.3	AGC. dpl.
22	25 4919	9.5	10.94	62	92	10.9	0 0	-10.1	
23	+25 4920	9.4		63	95	11.0	+0 18	- 4.7	
24			11.06	64	99	11.1	+0 28	+ 9.4	
25				70	101	11.4	+1 10	- 3.5	
26				74	102	11.5	+1 20	- 9.6	
27				74	103	11.5	-1 23	+20.3	
28			11.84	79	106	11.8	+0 28	-14.2	
29				85	111	12.1	+0 12	+ 1.0	
30				88	116	12.3	+0 13	+ 2.2	
31			11.84	89		12.1	+0 26	- 5.8	
32			12.38	93		12.3	+0 19	- 9.4	

8395

## RU Aquarii

 $23^{\text{h}} 16^{\text{m}} 48^{\text{s}}$  (1855.0)  $-18^{\circ} 6'.9$ 

Variatio ignota.

Num.	BD.		HP.	Gradus	Magn.	$\Delta\alpha$	$\Delta\delta$	Notae
1	$-18^{\circ} 6283$	$6^{\text{M}}.0$	$6^{\text{M}}.08$		$6^{\text{M}}.1$	$-5^{\text{m}} 1^{\text{s}}$	$-45'.3$	
2	18 6295	7.8	7.94	0	7.8	-0 33	-27.9	
3	17 6733	7.2	7.96	13	8.1	-2 56	+37.9	
4	18 6305	8.4		22	8.4	+0 47	-46.1	
5	18 6304	8.3	8.68	26	8.5	+0 41	-18.5	
6	18 6300	8.5	8.77	32	8.7	+0 8	-18.5	
7	18 6297	8.7	8.94	36	8.9	-0 20	-22.8	
8	17 6734	8.3		45	9.1	-2 53	+26.7	
9	18 6289	8.5		51	9.4	-3 28	-15.7	
10	18 6291	8.8		56	9.6	-3 3	-11.5	
11	18 6306	9.1		63	9.9	+1 1	+ 2.5	dpl.
12	17 6739	9.0		66	10.0	-2 6	+13.7	
13	17 6741	9.0		68	10.1	-1 35	+ 8.5	
14	17 6751	9.2		72	10.2	+2 2	+30.2	
15	17 6747	9.4	10.27	73	10.3	-0 6	+16.3	
16	18 6294	9.2		74	10.3	-0 36	-11.1	
17	17 6738	9.3		79	10.5	-2 7	+ 8.2	
18	17 6749	9.2		80	10.5	+1 22	+24.2	dpl.
19	17 6748	9.5		83	10.7	+0 43	+25.1	
20	18 6301	9.5		85	10.7	+0 27	-18.4	
21	18 6293	9.5	10.84	91	10.9	-0 43	- 0.6	
22	17 6746	9.8		93	11.0	-0 10	+26.6	
23	17 6740	9.5		94	11.1	-1 48	+16.6	
24	18 6296	9.8	11.37	98	11.3	-0 31	- 1.6	
25				100	11.3	-0 54	- 9.1	
26	$-18^{\circ} 6303$	10	11.40	106	11.5	+0 35	- 3.8	

8562

## Z Aquarii

23<sup>h</sup> 44<sup>m</sup> 46<sup>s</sup> (1855.0) — 16° 39'.7Max. = 2 415 221<sup>d</sup> + 216<sup>d</sup>E?

Num.	BD.		HP.	Gradus	Magn.	$\Delta\alpha$	$\Delta\delta$	Notae
1	-16° 6373	6 <sup>M</sup> .3	6 <sup>M</sup> .41		6 <sup>M</sup> .4	-2 <sup>m</sup> 44 <sup>s</sup>	- 0'.3	
2	15 6491	7.8			(7.0)	-6 23	+66.0	
3	17 6836	7.3	7.72	0	7.5	+0 27	-31.2	
4	17 6819	7.0	7.52	3	7.6	-4 5	-50.6	
5	15 6506	7.5	7.46	5	7.6	-1 47	+52.3	
6	15 6494	8.3	8.14	18	8.0	-6 13	+43.3	
7	16 6363	8.2	8.29	25	8.2	-4 40	- 7.7	
8	17 6825	8.5		31	8.4	-3 8	-24.4	
9	16 6370	8.4	8.59	37	8.6	-3 40	+38.8	
10	15 6501	8.8		42	8.8	-3 3	+56.2	
11	17 6834	8.8		45	8.9	-0 1	-32.7	
12	15 6500	8.6		46	8.9	-3 40	+59.8	
13	17 6837	8.7	9.06	46	8.9	+0 35	-51.6	
14	16 6376	8.6		49	9.0	-1 25	-16.2	
15	15 6521	8.5		54	9.2	+3 16	+60.5	
16	16 6385	8.6		56	9.3	+2 5	+13.0	
17	17 6822	8.8		64	9.6	-3 34	-24.9	
18	17 6835	9.0		66	9.6	+0 16	-27.3	
19	16 6378	9.0		70	9.8	-0 36	+29.6	
20	16 6383	8.9	9.93	73	9.9	+1 31	- 0.7	
21	16 6381	9.3	9.97	77	10.0	+1 3	- 8.8	
22	17 6828	9.5		85	10.4	-1 29	-29.3	
23	17 6829	9.8		89	10.6	-1 16	-21.5	
24	17 6839	9.6		90	10.6	+0 50	-24.3	
25	17 6831	9.8		92	10.7	-0 34	-29.2	
26	-16 6380	9.8	10.72	92	10.7	+0 3	- 1.2	

8582

## RS Andromedae

 $23^{\text{h}} 48^{\text{m}} 4^{\text{s}}$  (1855.0)  $+47^{\circ} 49'.9$ 

Variatio ignota.

Num.	BD.		HP.	Gradus	Magn.	$\Delta\alpha$	$\Delta\delta$	Notae
1	+46° 4214	5 <sup>M</sup> .9	6 <sup>M</sup> .13		6 <sup>M</sup> .1	+0 <sup>m</sup> 12 <sup>s</sup>	-77'.0	PD. G-, 6 <sup>M</sup> .1
2	47 4322	6.5	6.82		6.8	+0 26	-25.0	„ WG-, 6.8
3	46 4211	6.7	7.14		7.1	-0 15	-54.6	„ WG, 7.0
4	47 4308	7.5	7.27	0	7.3	-2 30	- 9.4	„ W+, 7.6
5	47 4331	7.4	7.46	3	7.4	+1 59	-21.5	„ W, 7.5
6	47 4312	7.5	7.69	12	7.6	-0 55	- 0.5	„ W+, 8.0
7	48 4193	8.0	7.84	18	7.8	+0 10	+17.7	
8	46 4191	7.2	7.75	22	7.8	-3 46	-69.0	„ W+, 8.0
9	46 4190	7.6		27	8.0	-3 52	-53.0	
10	48 4190	7.7	8.21	33	8.2	-0 58	+17.4	
11	46 4187	8.5		41	8.4	-4 27	-67.8	
12	48 4173	8.4		45	8.5	-3 24	+23.7	
13	47 4335	8.4		45	8.5	+2 10	-34.1	
14	47 4343	8.6		52	8.6	+3 2	+ 8.2	
15	48 4196	8.8		54	8.7	+1 36	+50.8	
16	48 4218	8.5		56	8.8	+6 2	+22.3	
17	46 4217	8.4		56	8.8	+1 11	-54.8	
18	47 4349	8.5		60	8.9	+3 24	-28.2	
19	47 4361	8.5		60	8.9	+5 59	-41.8	
20	47 4311	8.4	8.96	66	9.0	-1 37	- 0.7	
21	47 4338	8.5		73	9.3	+2 15	-14.6	
22	47 4334	9.0		76	9.4	+2 9	-21.4	
23	47 4337	8.5	9.59	77	9.4	+2 14	-13.4	
24	47 4327	8.9	9.53	78	9.4	+1 14	-10.9	
25	48 4195	8.4		78	9.4	+1 21	+51.0	
26	47 4313	9.0		81	9.5	-0 50	-24.3	
27	48 4179	9.1		84	9.6	-2 42	+24.1	
28	47 4324	9.0	9.83	86	9.6	+1 1	+ 4.2	
29	47 4306	9.5		88	9.7	-3 2	- 9.3	
30	47 4320	9.3	9.88	92	9.8	+0 5	- 3.1	
31	47 4321	9.4	9.88	93	9.8	+0 13	+ 3.1	
32	47 4340	9.2		96	9.9	+2 25	+ 5.2	
33	47 4330	9.4		101	10.1	+1 57	+ 3.6	
34	47 4314	9.2		101	10.1	-0 49	-28.7	
35	+47 4342	9.5		104	10.2	+2 35	- 8.3	

Num.	BD.		HP.	Gradus	Magn.	$\Delta\alpha$	$\Delta\delta$	Notae
36	+47° 4307	9. <sup>M</sup> 5	9. <sup>M</sup> 92 10.33	106	10. <sup>M</sup> 2	-2 <sup>m</sup> 56 <sup>s</sup>	-25'.2	dpl.
37	47 4333	9.5		106	10.2	+2 5	- 9.0	
38	48 4188	9.5		106	10.2	-1 36	+23.9	
39	48 4187	9.4		108	10.2	-1 37	+10.7	
40	47 4316	9.5		110	10.3	-0 33	- 3.5	
41	47 4309	9.5		112	10.4	-2 5	+ 6.1	
42	48 4199	9.5		112	10.4	+2 27	+13.4	
43	48 4189	9.3		116	10.5	-1 27	+24.3	
44	48 4181	9.5		119	10.6	-2 28	+20.4	
	47 4317	9.4				-0 13	- 3.8	
	+47 4332	9.4				+2 1	+ 4.5	} *

\* Neutra unquam visa (1904).

8598

## U Pegasi

 $23^h 50^m 35^s$  (1855.0)  $+15^\circ 8'.9$ Max. = 1894, Sept.  $22^d 18^h 13^m.2$   $+4^h 29^m 50^s.67$  E.

Num.	BD.		HP.	Gradus		Magn.	$\Delta\alpha$	$\Delta\delta$	Notae
1	$+14^\circ 50'74$	$7^M.2$	$6^M.59$	0		$6^M.6$	$-2^m 5^s$	$-43'.5$	PD. G, $6^M.6$ (g)
2	14 5077	7.9	7.60	21		7.5	-0 44	-20.7	
3	14 5084	8.2		0	40	8.1	+3 55	-25.6	
4	15 4903	8.2	8.36	6	45	8.3	-3 52	- 3.2	
5	15 4916	8.8	8.92	25	60	8.9	+0 53	- 7.1	
6	15 4907	8.8	8.93	27	62	9.0	-1 56	+21.2	
7	14 5078	9.3		36	71	9.4	-0 13	-28.9	
8	14 5080	9.5		38	72	9.5	+1 52	-10.3	
9				52	91	10.2	-0 54	+ 8.1	
10	15 4912	9.5		59	94	10.4	-0 36	+ 0.4	
11	15 4908	9.5		65	98	10.6	-1 40	- 0.4	* Multipl.
12				71	101	10.7	+0 15	-23.0	
13				68	103	10.8	-1 18	- 4.5	
14	15 4909	9.5		74	104	10.9	-1 0	+12.3	
15	15 4917	9.3	11.18	80	107	11.1	+1 42	+ 0.1	
16				84	107	11.2	-0 42	+ 2.7	
17				86	107	11.2	+0 17	+ 9.3	
18				90	108	11.3	+1 3	-17.4	
19	15 4914	9.5	11.34	92	111	11.4	-0 1	+25.5	
20				98	114	11.7	-0 50	- 5.4	
21	$+15^\circ 49'18$	9.5		99	116	11.7	+1 55	+21.2	
22				103	119	11.9	-0 19	- 3.6	
23				109	123	12.1	-0 37	- 6.6	

\*  $(9 + 16) = \text{BD.} + 15^\circ 49'10, 9^M.5.$

8600

## R Cassiopeiae

 $23^h 51^m 4^s$  (1855.0) +  $50^\circ 34'.9$ Max. =  $2\ 398\ 374^d + 431.6\ E$  (Inaequalitas periodica).

Num.	BD.		HP.	Gradus	Magn.	$\Delta\alpha$	$\Delta\delta$	Notae
1	+49° 4309	6 <sup>M</sup> .5	6 <sup>M</sup> .36	0 0	6 <sup>M</sup> .5	+2 <sup>m</sup> 53 <sup>s</sup>	-84'.4	PD. WG, 6 <sup>M</sup> .4 *f
2	51 3739	6.5	6.77	6 12	6.6	-2 50	+80.8	„ WG, 6.8
3	49 4291	6.7	6.83	17 19	6.8	-0 18	-56.8	„ GW, 6.9 *g
4	50 4180	7.0	6.97	19 21	6.8	-4 47	+ 8.1	„ WG, 7.0
5	49 4297	7.2	7.37	31 36	7.2	+0 50	-51.5	„ WG-, 7.4 *k
6	50 4208	7.2	7.17	35 41	7.3	+1 8	-33.3	„ GW-, 7.4 *h
7	49 4314	7.0	7.37	40 50	7.4	+3 55	-53.3	„ W+, 7.7
8	50 4226	7.8		45 55	7.7	+4 13	+ 5.1	
9	49 4298	7.7	8.16	52 59	7.9	+0 57	-52.8	*l
10	51 3744	8.1		55 64	8.0	-1 25	+46.5	
11	51 3734	8.0		57 67	8.1	-4 47	+33.0	
12	49 4303	8.5		69 78	8.5	+1 47	-35.8	
13	50 4216	8.8		71 79	8.6	+2 28	+17.4	
14	50 4198	8.4		77 86	8.8	-0 19	-33.1	dpl. AGC.
15	51 3750	8.5	8.80	77 87	8.8	+0 29	+26.2	*m
16	50 4193	8.7		78 87	8.9	-1 45	+ 6.3	
17	50 4187	8.4		79 88	8.9	-3 3	+20.3	dpl. AGC.
18	50 4210	8.9		82 89	9.0	+1 46	- 6.3	
19	49 4289	8.7		86 92	9.1	-0 33	-50.9	
20	50 4188	8.7		90 94	9.2	-3 0	-30.7	
21	50 4203	9.0	{ 9.40 9.25 }	93 96	9.3	+0 10	- 3.9	**n
22	49 4307	9.0		98 97	9.4	+2 30	-41.1	
23	50 4199	8.7		98 99	9.4	-0 14	-21.3	
24	49 4287	8.9		98 101	9.4	-0 49	-56.8	
25	50 4214	9.2		102 102	9.5	+2 21	- 9.8	
26	50 4206	9.4		109 104	9.7	+0 51	-24.9	
27	50 4215	9.0		112 107	9.8	+2 25	-34.5	
28	50 4218	9.4		113 109	9.8	+2 36	+12.1	
29	50 4221	9.2		116 109	9.9	+3 0	-19.5	
30	50 4197	9.3	{ 9.93 9.80 }	116 113	9.9	-0 21	- 8.9	**o
31	50 4195	9.3		116 114	10.0	-1 8	+23.0	
32	50 4192	9.0		116 116	10.0	-1 48	-23.0	
33	50 4209	9.4		120 115	10.1	+1 33	-25.3	dpl.
34	50 4200	9.4		121 117	10.1	-0 10	+20.9	
35	+50 4213	9.5		125 118	10.2	+2 11	+ 6.9	



Num.	BD.		HP.	Gradus	Magn.	$\Delta\alpha$	$\Delta\delta$	Notae
36	+50°	4194	9. <sup>M</sup> 5	125 120	10. <sup>M</sup> 3	-1 <sup>m</sup> 14 <sup>s</sup>	+ 6'.1	
37	50	4205	9.5	125 121	10.3	+0 27	+18.4	
38	50	4196	9.4	125 121	10.3	-0 56	+18.4	
39	50	4191	9.4	126 122	10.4	-2 27	+24.1	
40	50	4207	9.5	132 123	10.5	+1 8	-19.4	
41	50	4220	9.5	134 127	10.6	+2 54	-21.9	
42				134 127	10.6	-0 9	+17.9	
43			10. <sup>M</sup> 50	136 127	10.6	+0 46	+ 2.9	*p
44	50	4189	9.5	138 129	10.7	-2 46	- 5.3	
45				140 129	10.8	+2 1	+ 9.7	
46	50	4219	9.5	141 130	10.8	+2 39	+ 1.3	
47	50	4211	9.5	143 131	10.9	+2 0	+10.5	
48	50	4217	9.5	143 132	10.9	+2 31	+19.7	
49				145 133	11.0	+2 5	+ 6.3	
50	50	4190	9.5	146 134	11.0	-2 46	- 6.0	dpl.
51			10.98	146 136	11.1	+0 27	- 4.2	*q
52	50	4201	9.5	149 142	11.3	-0 2	+ 0.3	*r
53				150 142	11.3	-0 11	- 8.7	
54				152 143	11.4	-0 51	+ 6.0	
55	+50	4212	9.5	154 148	11.5	+2 8	+18.5	
56				156 150	11.6	-1 14	+ 6.7	
57			12.12	165 159	12.1	-0 11	+ 4.5	*t
58			12.40	171 162	12.4	+0 9	- 2.1	*u

\* HCO. vol. XXXVII p. 11.

\*\* " " " p. 12, Notae; vol. XLV p. 307, n = 9.<sup>M</sup>05.

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quae in hac Serie IV<sup>a</sup> continentur.

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1929	Y Aurigae	4521	R Virginis	6927	U Sagittae	7563	VY Cygni
2038	Y Tauri	4535	Y Ursae Maioris	6943	T Sagittae	7570	RS Capricorni
2122	Z Aurigae	4557	S Ursae Maioris	6974	RR Lyrae	7609	T Cephei
2170	S Leporis	4665	RT Virginis	7008	UV Cygni	7783	RU Cygni
2266	V Monocerotis	4805	W Virginis	7034	U Vulpeculae	7795	RV Cygni
2279	T Monocerotis	4826	R Hydrae	7063	TT Cygni	7846	VZ Cygni
2328	Z Monocerotis	5194	V Bootis	7085	RT Cygni	8182	U Lacertae
2335	W Geminorum	5221	RV Librae	7085a	SU Cygni	8187	V Lacertae
2475	X Monocerotis	5484	U Coronae	7106	S Vulpeculae	8369	W Pegasi
2539	R Canis Minoris	5601	S Ursae Minoris	7235	W Vulpeculae	8395	RU Aquarii
2676	U Monocerotis	5687	ST Herculis	7239	SV Cygni	8562	Z Aquarii
2899	RU Puppis	5768	RR Herculis	7242	S Aquilae	8582	RS Andromedae
3028	RT Hydrae	5887	V Ophiuchi	7244	RW Aquilae	8598	U Pegasi
3089	RV Hydrae	5948	R Ursae Minoris	7257	R Sagittae	8600	R Cassiopeiae